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ABSTRACT

The papers which make up this volume were for the most part presented at a program of seminars given in Oxford, England, in the autumn of 1990. The seminars represented the first activity of the new Centre for Comparative Studies in Education installed at the Department of Educational Studies of the University of Oxford in January 1990. The Centre's principal objective is to collect and analyze data on education in other countries in order to make comparisons with the United Kingdom that might inform policy discussions. The present collection seeks to make a contribution to two important questions in the study of comparative education: What lessons can be learned from cross-national studies of issues in education? and What problems of comparative method do such studies have to address? The nine papers in the collection include: "Introduction" (David Phillips); "An International Comparison of Access to Higher Education" (A. H. Halsey); "Schools of Education and Teacher Education" (Harry Judge); "Education Training and Economic Performance in Comparative Perspective" (David Finegold); "French Lessons: Comparative Perspectives on What It Means to be a Teacher" (Patricia Broadfoot; Marilyn Osborn); "Apprentice Training in Germany: The Experiences of the 1980s" (Bernard Casey); "Alternative Funding of Education Systems: Some Lessons from Third World Experiments" (Keith Watson); "Unlearnt European Lessons: Why Austria Abandoned the Comprehensive School Experiments and Restored the 'Gymnasium'" (Karl Heinz Gruber); and "Japan--Pupil Turned Teacher?" (Roger Goodman). (DB)

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Volume 1, 1991

LESSONS OF CROSS-NATIONAL COMPARISON IN EDUCATION

Edited by
David Phillips

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Lessons of Cross-national Comparison in Education

LESSONS OF CROSS-NATIONAL COMPARISON IN EDUCATION

Oxford Studies in Comparative Education, Volume 1

Edited by David Phillips

Triangle Books

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Introduction

DAVID PHILLIPS *University of Oxford, United Kingdom*

The papers which make up this volume, the first of a series of *Oxford Studies in Comparative Education*, were for the most part presented at a programme of seminars given in Oxford in the autumn of 1990. The seminars in question represented the first activity of a new Centre for Comparative Studies in Education established at the Department of Educational Studies of the University of Oxford in January of that year.

The Centre's principal objective is to collect and analyse data on education in other countries in order to make comparisons with the UK which might inform policy discussions. It will do this by means of a continuous process of monitoring of educational policy developments in developed countries generally, but particularly in a number of countries and areas identified as providing a focus for the Centre's interests, and through a series of research projects which will investigate particular issues on a cross-national basis. The Centre aims to make a general contribution to the study of education in a comparative and cross-national context; in so doing one of its considerations will be to subject the methods of comparison to critical scrutiny.

The comparative dimension in the processes leading to educational policy making has become increasingly manifest in recent years, especially in the United Kingdom and the United States. Keith Watson reminds us in his contribution to this volume of the widespread interest in what can be learnt from other countries, quoting the view of Steve Heyneman of the World Bank that so many educational issues are now seen to be universal, to transcend country boundaries, that it would be wrong not to examine them from a comparative perspective.

Interest in the education systems of other countries has a long history. In the present volume Roger Goodman examines the case of Japan as learner and teacher in its historical context, and Karl Heinz Gruber describes the continuing failure of Austria to benefit from foreign examples of different practice – and that interest is fraught with the many problems that are dealt with by Goodman and Gruber and the other contributors. In the early years of

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the century the Office of Special Inquiries and Reports of the Board of Education was producing, under Michael Sadler's direction, an exhaustive series of comparative studies of educational issues, with much importance attaching to Germany. The 'Sputnik Shock' of the late 1950s jolted policy makers in the United States into considering the extent to which American educational provision lacked the competitive edge that the Russians seemed to be gaining. By 1958 the National Defense Education Act was providing massive support for curricular reform.

Now it is Japan which seems to hold a particular fascination for educationalists in the United States, and increasingly in the UK. The literature on Japanese education has become very extensive, but the purpose behind some of the studies, as Roger Goodman demonstrates, is on occasion questionable: the example of Japan is often used 'as a "strawman" or "idealised model" off which to bounce [particular authors'] own ideas and beliefs'. In *A Nation At Risk* (1983), the report of the US National Commission on Excellence in Education, there is an explicit message that the Japanese example must serve as a reminder of shortcomings at home. In January 1987 the US Department of Education itself published a report called *Japanese Education Today*, with a contribution by Secretary of Education William J. Bennett on the implications of the report's findings for education in America.

In the UK there has been sustained political interest, since Sir Keith (now Lord) Joseph's tenure as Secretary of State for Education and Science, in education in the Federal Republic of Germany. Reference to the German example became almost a *sine qua non* of many official statements, speeches and interviews, in which assertion too often served as evidence. The properly analytical work of Prais and Wagner, however, on comparative attainment in England and the FRG, figured prominently in the discussions, as did accounts of the highly developed system of vocational training in the FRG, considered in this collection by Bernard Casey and now the subject of a report by Her Majesty's Inspectorate (HMI). The recent publication of a series of reports by HMI on aspects of education in other countries has been a most significant development: the first of them confirmed the 'official' interest in Germany by covering curriculum and assessment in the FRG. The reports in question are the first such to be made available to the public since Sadler's pre-World War I series, and they have clearly been issued with a view to furthering the discussion of particular current UK policy issues. Members of the Inspectorate have recently (1991) reported on education in Japan.

The HMI series includes studies of higher education in the United States, one of which covers teacher education; it includes too a study of teacher education in France. The opening papers in the present volume describe the purpose of two Oxford research projects on these subjects: A. H. Halsey's work on access to higher education in a number of countries, and Harry Judge's cross-national study of teacher education in the UK, France and the USA. Other papers impinge on topics that have emerged significantly in the HMI reports: David Finegold's contribution on training and economic

performance and Bernard Casey's paper on apprentice training in the FRG. Patricia Broadfoot and Marilyn Osborn describe their comparative work on perceptions of what it means to be a teacher in France and England in a paper which also deals in detail with the difficult methodological considerations in undertaking such a study.

In offering the present collection of papers as the first volume in the new series, the Oxford Centre for Comparative Studies in Education hopes to have made a contribution to two important questions in the study of comparative education: 'What lessons can be learnt from cross-national studies of issues in education?' and 'What problems of comparative method do such studies have to address?' It is anticipated that the Centre will return to these questions in its future seminars and in future volumes of *Oxford Studies in Comparative Education*.

An International Comparison of Access to Higher Education

A. H. HALSEY *University of Oxford, United Kingdom*

Introduction

We can start conveniently from the plain fact that access to higher forms of education has expanded in most countries in the twentieth century. At the beginning the characteristic enrolment rate in Europe and America was no more than 2%. By 1984 access had widened to include 44% of the 18–24 year olds in the United States, 22% in the Netherlands, 21% in Japan, 20% in West Germany, 19% in France and 15% in the United Kingdom (Table 1). In most countries there are more than twice as many university teachers now as there were students in higher education at the beginning of the century. In terms of certification, 70% of British 25–29 year olds now have some sort of educational qualification: among the 50–59 year olds the figure is only 39%.

Moreover, plans for further expansion of access are current in Europe and in the NICs (newly industrialised countries) of the Pacific rim, independently of demographic trends. France, for example, expects to educate 80% of its children to the Baccalaureate level (the qualification for university entrance) by the year 2000, which means that half the age-group will enter and the numbers will double to nearly two million. The British governmental intention is to raise the participation rate in higher education from its present 15% to 30% by the end of the century. Similar ambitions have been announced throughout the world of advanced industrial countries from Norway to Korea reflecting, among all the forces that determine the level of access, a renewed belief in policy circles that investment in people is the key to economic growth.

The general theory in barest outline can be stated as follows. The dependent variable, access to higher education, is explicable in terms of four independent variables: first, the type of economy; second, the type of polity; third, the dominant beliefs or ideology concerning the social distribution of opportunity; and fourth, the structure of education itself. Thus a rich economy, a pluralistic polity, a popular belief in educability and in high rewards to qualification, and a universal system of primary and secondary

TABLE 1. All enrolments on higher education courses

	Year	Typical duration of first degree courses (yrs)	Total enrolments		Percentage of enrolments			
			No (000's)	per 100 of 18–24 population	in Univ.	Below degree (level 5)	Degree (level 6)	Post-graduate (level 7)
France[a,b]	1983	4	1144	19	82	16	71	12
Germany[b]	1984	4	1503	20	87	14	85	1
Italy	1984	5	1182	18	99	5	92	6
Japan[c]	1984	4	2403[d]	21	81	18	79	3
Netherlands[b]	1983	5	384	22	42	59	41	
United Kingdom[e]	1984	3[f]	1007	15	42	35	54	11
USA[c,g]	1984	4	12,468	44	62	25	54	22

[a] Includes an unknown number of students enrolled at both university and non-university institutions simultaneously.
[b] Level detail based on 1982 or 1983 data.
[c] Includes enrolments at private colleges, estimated at 1·8 million in Japan and 2·7 million in the USA.
[d] Includes enrolments on correspondence courses and 107·7 thousand for which the breakdown by ISCED levels is not available.
[e] Includes nursing and paramedical courses at DHSS establishments. Excludes private sector enrolments, estimated at some 0·3 million.
[f] Four years in Scotland.
[g] Percentages of enrolments by level are based on proportions qualifying in 1982. Percentage of enrolments in university based on 1982 data.
Source: Department of Education and Science, *Statistical Bulletin*, 4/87, March 1987.

schools would all promote wide access to higher education. However, this is a highly abstract formulation, useful for ordering the relevant research and writing but disguising both the complexity or multi-dimensionality of each of the five variables and ignoring the essentially interactive character of the relations between them. Thus, for example, economies differ not only in the technology or power over nature that they deploy but also in their organisation, especially with respect to competitive markets. Economies vary in their relation to polities, especially with respect to central control as against autonomy. Even for countries of similar political economy, the prevailing beliefs concerning opportunity, status and merit may make one élitist and another populist with respect to access to higher learning. And countries vary also in the curriculum, organisation, public and private control, and age of entry to and exit from schools in ways which contribute to variation in access to the tertiary stage of education.

Five hypotheses about access to higher education may reasonably be said to lie near the centre of debate in contemporary advanced countries everywhere (they are listed in the next section). In neither educational theory nor educational policy has dispute been substantially resolved. Education as an apparatus of social selection, as a nursery of occupational skills, as a solvent of traditional ascriptive social structures, or as an engine of cultural transmission and innovation – all these remain issues in general theories of society. Correspondingly, policy debate over 'what is to be done' with respect to access to higher education also remains contested. My purpose in this study is therefore to try to advance both theory and policy by reviewing contending theories and testing the five hypotheses through cross-national comparison.

To explain access is to explain scarcity. Education is valued because it is a scarce good, so we must expect to find either or both market and political institutions for its distribution. Education can be a consumption good, as when the resident caretaker of my college goes to night school to learn modern Greek, in which case it is mainly of interest to students of culture. Second, education can be a production good, as when someone takes a degree in dentistry. It then becomes of avid interest to Chicago economists like Theodore Schultz who expounded human capital theory in his famous 1961 paper (Schultz, 1961), or to Soviet state planners like Stanislav Strumilin who in 1924 justified state investment in education by working out its rate of return (he made it 11 times its cost over a lifetime, though with diminishing returns) (Kaser, 1986). Third, education can be a positional good either in the economist's sense of a screening, sieving or queuing device for selecting and allocating recruits to the labour market (Arrow, 1973; Layard & Psacharopoulos, 1974) or in the sociologist's sense of a collective negative sumgame with its associated inflationary credentialism and intensified status competition (Berg, 1970; Dore, 1976; Collins, 1979).

In the literature on the political economy of education a spectrum is, in effect, postulated with the pure market at one extreme and the centrally planned command economy at the other. In reality there are no pure cases.

Milton Friedman justifies state intervention in the name of 'neighbourhood effects' (Friedman, 1955). The USSR has had periods of fee paying for secondary and tertiary education beyond compulsory schooling. Nevertheless countries can be spread along the spectrum and fall into four discernible clusters (cf. Avakov *et al.*, 1984).

(1) At the Western extreme are the two decentralised systems of higher education in Canada and the United States. In the United States, more than 3000 degree-granting institutions and the community colleges are, as it were, small-scale capitalist entrepreneurs subject through market discipline to birth and death by contrast with their planned European counterparts – slower in gestation and even slower to die. Albeit with varying state subsidies, they offer access through a free market. There is high student enrolment and much broader non-specialised education directed towards a high degree of occupational flexibility. Manpower utilisation is adjusted through large numbers of re-training programmes rather than through manpower forecasting. There is no need for macro-planning. The individual university or college solves its own problems, competing with many other sellers for the favours of many student buyers.

(2) A second group has been made up of the hitherto highly centralised higher education systems of the socialist countries of Eastern Europe where education has been a creature of manpower planning (Avakov *et al.*, 1984; Lane, 1985). The USSR has had an elaborate planning mechanism. Long-term and short-term, macro and micro, sectoral by industry and geographical by region. The state has determined both demand and supply. Access is then politically determined and bureaucratically administered (though a flourishing black market in tutoring for entrance examinations has been widespread).

(3) A third group is that of the Western European social democracies, which lie in between. Higher education is mostly publicly financed but there are varying degrees of centralisation and more or less developed social markets controlling access by students to universities and colleges.

(4) A fourth group is that of the recent and rapidly industrialised countries of the Pacific rim, led by Japan and including Taiwan, Korea and Hong Kong. Their higher education rates are rising very fast. Both the state and the market are in active use in the promotion of widening access.

All four systems can claim to work. Both the USA and the USSR, from different starting points, have traversed a long journey along the Trowian road to mass higher education (Trow, 1974, 1987). American enrolments in higher education have held up at 12·5 million despite a decline in the size of the traditionally relevant age-groups. In the USSR between 1955 and 1980 the number of new admissions to higher education rose by 2·3 times to reach one million at the later date (Avakov *et al.*, 1984).

In between are the mixed systems of Western Europe. Roughly speaking it may be said of all these countries, as well as of Eastern Europe, that, right through the expansion of higher eduction in the twentieth century, the supply

of graduates has risen behind the demand for them. There is admittedly an important exception – Germany in the 1920s. Between 1925 and 1932 the number of students in German universities rose from 90,000 to 140,000, and 60,000 graduates were out of work. The difficulty was solved in 1933 when the Nazis came to power. It was solved by a brutal act of state planning: a *numerus clausus* was imposed, annual entry was reduced to 15,000 with 10% women and no Jews. Within a few years the graduate market was, in economists' jargon, 'cleared'.

The social democracies have not found it politically possible to plan so effectively. Yet there are said to be urgent reasons for doing so, which emerged in the recession decade of the 1970s. Graduate unemployment is one of them and is seen as a serious problem in Germany. But there are other reasons that push and pull the access policies of these countries between the two poles of market and planning strategy. The essential reason is that they are welfare states, i.e. in their varying circumstances they have sought in this century to find a compromise between the claims to equality and fairness of access, rooted in citizenship, and the claims to freedom of entry to the higher education market, rooted in class. As T. H. Marshall said, class and citizenship have been at war in the twentieth century (Marshall, 1950). Higher education is an intricate example of the interplay of the forces of citizenship responding to popular political demand and accommodation to class interests through market strategies. Of course neither has ever won outright victory in any field of public policy.

The Five Hypotheses

The main substance of the research project on which I have embarked with funding from the Spencer Foundation will be a testing and discussion of five hypotheses that represent my interpretation of the relevant literature:

1. Access to higher education rises with the recognition of merit.
2. Because educational expansion leads to credentialist inflation, access becomes an arena of status struggles between social groups.
3. Access expands but is socially shaped to yield *absolute* but not *relative* gains in educational chances for traditionally disadvantaged groups.
4. Access expands but is socially controlled by institutional differentiation so that élite universities (Ivy League, Oxbridge, *grandes écoles*, ex-Imperial Japanese universities) remain the cultural possession of traditionally advantaged groups.
5. Access expands globally but international student flows perpetuate cultural and economic inequality between nations.

1. The Meritocratic Hypothesis

Traditional societies are portrayed in the sociological literature as dominated by ascription. On a long historical perspective economies are systems of stratification and education prepares people for places in the stratified order of production and consumption. In Europe in the eighteenth and nineteenth centuries there were essentially two separate arrangements for the upper and lower strata. For traditional élites, educational institutions such as the German law faculties, the French *grandes écoles*, or the English 'public' schools and ancient universities were vehicles for the preservation, transmission and renewal of the styles of life rather than the occupations of the elevated strata. Primary education was for 'workmen and servants'. It eventually became free and compulsory. Education in Europe, at least up to the end of the nineteenth century, was a public stamp determined for all but a tiny minority by the circumstances of private birth. But in the twentieth century there have been fundamental changes in the formation and function of élites. They have expanded and, especially after the Second World War, have drawn in new recruits of more diverse social origin. In consequence, the traditional, but highly restricted, function of schools and universities as promoters of mobility for the gifted sons (and to an even smaller extent daughters) of the masses has been strengthened, at least temporarily. Meanwhile, élite occupational groups have become more differentiated in their function, less closely knit in their familial educational origins and connections, and more specialised in their economic and social role and their basis in knowledge. Access to higher education has accordingly widened.

It does not follow, however, that advanced industrialism necessarily generates technocracy or a generalised meritocracy. A similar technological base can support widely different distributions of power and advantage depending on the historical, political and cultural conditions of any particular country. Elites may be more or less open. Moreover, to varying degrees, established and emergent élites accommodate one another. In the Soviet Union the accommodation seems to be have taken the form of control by the political élite over bureaucratic, industrial and military organisations. In France the technocratic traditions instituted by Napoleon in the *grandes écoles* are closely assimilated to the metropolitan and governmental élite. In the United Kingdom the amateur and classical traditions of Oxford and Cambridge have hitherto largely contained the expansion of science and technology and subordinated the 'expert' to a relatively subservient role among higher officialdom and in large-scale industrial enterprise.

In the Third World, especially in the period of the widespread establishment of new states in Africa and Asia in the middle years of the twentieth century, the modernising élites were heavily recruited from those with educational experience in European and North American schools and universities. Education for the masses, typically represented as investment in

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human capital, has been a strong motive force in modernising movements. But there has been considerable tension between, on the one hand, the wish to preserve elements of traditional cultures in educational systems and, on the other hand, to incorporate the scientific and technological culture of the richer Western countries. Thus education has been intricately involved in status struggles over access as educational systems have expanded all over the world (Collins, 1979).

Public credentials or qualifications are increasingly the mark of modern societies, legitimising inequalities of pay and controlling entry to the labour market. In broader historical perspective it should be noted that societies may distribute their opportunities according to many different principles. Primogeniture, for example, was widespread in agrarian societies, the principle being that the first-born has the right of inheritance to a defined occupational position together with the property or monopoly pertaining to it. Some form of inheritance or ascription has been the dominant traditional principle in the whole history of human society. Education under such circumstances reproduces the stratified *status quo*. But modern systems of stratification might appear to permit the deliberate use of educational selection to break the traditional tie of birth to occupational destination and instead to foster meritocracy (Young, 1958; Bell, 1973).

Blau & Duncan (1967) interpreted the relation between education and occupational achievement within the framework of a postulated broad movement from ascription to achievement in the allocation of access to education, and this in turn may derive from a still broader trend from particularistic to universalistic definitions of social roles. The underlying theory is that the division of labour and the demands of efficiency together effectively ensure that there will be public arrangements to test competence before allocating people to positions. The role of industrialism, while generating class systems, has also been that of a catalyst, providing both encouragement towards openness and resources for political redistribution of opportunity.

Industrialism requires, or at least encourages, a more complex division of labour and a more mobile labour force: it gives opportunities to new skills, makes old ones obsolescent, releases knowledge and its acquisition from familial and quasifamilial networks, and above all generates the economic surplus that makes possible the pursuit of educational opportunities through governmental spending. At the same time, however, industrialism, especially in capitalist countries of the Western European type, generates a class system: with schools and other social organisations that are at once open in the formal and legal sense, but also tending towards closure because parents seek to convert their own class advantages into enhanced opportunities for their own children. In consequence, the family and the market are pitted against the state and the bureaucracy in struggles over meritocratic access to higher education, each acting as the agent of principles which, in the end, are contradictory. The

question for the present study is to compare movement towards meritocratic higher education in the varying political and economic circumstances of the countries chosen for investigation.

2. The Credentialist Inflation Hypothesis

Credentials are increasingly required by specialised occupations in modernised economies. But credentialist inflation is also interpreted as the outcome of status struggles for access to higher education. Independently, and from the perspective of a comparative sociologist, Ronald Dore has drawn on evidence from Britain, Japan, Sri Lanka, Kenya, China, Cuba and Tanzania to argue that the contribution of education to economic growth was misconceived and distorted in governmental planning so as to replace education by certification – the modern *Diploma Disease* (Dore, 1976). It was 'almost entirely in the factories and mines, the workshops and mills, not in the schools that the skills which fed Britain's industrial advance were both accumulated and transmitted' (Dore, 1976, p. 18). The modern trend towards raising the pre-career qualifications of increasing numbers of trades and professions has undermined both academic education and industrial training. For advanced industrial societies the trend is a problem: for the Third World it is a disaster. Under the pressure of the late development effect, i.e. the later the point in world history that a country starts on a modernisation drive, Dore asserts that, 'the more widely education certifications are used for occupational selection, the faster the rate of qualification inflation; and the more examination-oriented schooling becomes at the expense of genuine education' (Dore, 1976, p. 72). Thus any postulated trend from ascriptive towards meritocratic selection for higher education may be modified or baulked by the power of advantaged groups to control access to ever higher levels of educational attainment – a negative sum game with dice loaded against the children of the disadvantaged.

The phenomenon of status conflict over education is not, of course, new. Durkheim (1893), for example, was able to show that the pedagogical ideals of the Renaissance in France were, at least in part, an outcome of changes in class relations that developed in late medieval society. A more recent example is Trow's (1961) demonstration of the transformation of the United States high school from a mass terminal to a mass preparatory institution reflecting changes in the occupational division of labour from one largely made up of agricultural and industrial workers to an increasingly differentiated structure in which white-collar workers formed the majority. It is unclear exactly how far educational expansion since the 1930s is attributable to the effects of technology on occupational structure, or to struggles between status groups for cultural domination. But there is no doubt that both economic and cultural conflict lie behind the characteristic history of rising enrolments.

3. The Absolute but not Relative Gains of Disadvantaged Groups

The empirical literature suggests that educational expansion has given absolute gains in access to higher education for all groups but that the relative gains have tended towards stability rather than equalisation.

Taking the longer view of development out of classical industrialism in the nineteenth century towards one form or another of post-industrialism in the late twentieth century, modern educational systems can be thought of as the instruments used by the state in a grand strategy of 'class abatement' by the establishment of equality of opportunity irrespective of birth. Successive education acts establishing elementary and secondary universal education as well as the expansion of higher education have all been stages in the development of that strategy. The underlying theory has been that life chances depend upon education, that education controlled by the state could overcome the inequalities of class, and that above all education could be equalised by expansion. Many modern empirical studies have been concerned with the social scientific testing of this hypothesis. Among them have been the studies of Boudon (1974) in France, Jencks *et al.* (1972, 1979) in the United States, and Halsey *et al.* (1980) in the United Kingdom. At root such studies are concerned with the question of how far the state itself is an agent of the dominant class or, in different terms, how far political democracy can be successful in overcoming economic inequality as determinants of access to higher education.

Boudon (1974), using empirical data from a range of Western European countries, has demonstrated by a mathematical model the process through which an increase in educational equality can occur without any change or even possibly with a decrease in social mobility between classes. Jencks *et al.* (1972) arrived at similar pessimistic conclusions from data on the experience of individuals in the United States. People with similar family background, test scores and schooling were subsequently scattered over the range of occupational status and income to about three-quarters the extent of the scatter of people in general. In that sense 'United States society was open. By the same token the scope for social engineering on behalf of a principled allocation of life changes was woefully small. If schooling explained only 12% of the variance in individual incomes, then complete equalisation of schooling would at the maximum reduce income inequality by only 12%. The critics rightly complained that to assume it is possible to change the value of one variable without changing the totality of relations between variables in a system of plural causation is statistically convenient but sociologically invalid. If the United States gave everyone the same schooling, it would, in the process, completely change the class structure, the labour market and indeed the general shape of society.

In the later publication *Who gets Ahead?* (1979), Jencks *et al.* reassessed the determinants of economic success in America. It turned out, in short, that family of origin, schooling, measured intelligence and personality put a heavier, and 'luck' a lighter, stamp on a man's economic prospects than

readers of *Inequality* had been invited to believe. The old figure for the percentage of variance in occupational status explained by family background was 32; the new figure was 48. The old figure for schooling was 42 %; the new was 55 %. Combining the variables of family background, test scores, years of schooling and personality traits, it now appeared that the characteristics that people take into the market on first entry explain 55–60 % of variance in adult occupational status and 33–41 % of variance in annual earnings. Thus the general thrust of the *Inequality* argument was not negated by recalculation. For example, whereas in *Inequality* the expected difference between the occupational status of brothers was 82 % of the expected difference between pairs of unrelated men, the new percentage was 72. Clearly the revised figure did not afford dramatically enlarged scope to the social engineers.

In any case the old pessimism remained. Past efforts to equalise through education had been ineffective. Moreover, as Thurow (1981) argued, these policies were expensive and such effects as they had were to be arrested in the 1980s. In the 1970s in the United States there was an enormous difference in the educational qualifications of the cohorts entering and leaving the labour market. The leavers had experienced the relatively restricted opportunities for schooling available before the Second World War. The entrants were the beneficiaries of expanded opportunity. There was accordingly less scope for education to offset the forces of class and status, which produce and maintain inequality. The problem of equality, at least in the United States, was therefore likely to turn increasingly on the distribution of market incomes. That was indeed the burden of Jencks's original arguments.

Another approach to the problem is provided by Halsey *et al.* (1980) in *Origins and Destinations*, a study of the history of the relation between class and educational opportunity in the United Kingdom from the First World War up to 1972. A national survey of social mobility conducted from Oxford gave a sample of familial, educational and occupational biographies collected from 10,000 men in England and Wales. By arranging the records of individuals into birth cohorts, they were able to reconstruct the experience of successive generations passing through the educational system as it developed in the twentieth century.

Trends in the relation between class origin and university entrance are set out in Table 2. The figures in the table reflect the fact that the universities expanded throughout the century but especially in the 1960s, i.e. for those born between 1943 and 1952. It appears that university expansion kept pace with the growth of the upper-middle or professional and managerial classes and that 'Robbinsian expansion' was an effective response to the post-war baby boom. The familiar picture also emerges, as with restricted systems of higher education generally, that though the fastest absolute *rates* of growth almost always accrue to the working class, the greatest absolute *increments* of opportunity go to the upper-middle class.

Expansion has developed educational systems in two main ways: by raising the output of children qualified to go beyond secondary education; and

TABLE 2. Attendance at university by birth cohort (percentages) England and Wales

Father's social class	1913–22	1923–32	1933–42	1943–53
I, II (Upper middle)	7·2	15·9	23·7	26·4
	208[a]	*258*	*233*	*214*
III, IV, V	1·9	4·0	4·1	8·0
(Intermediate)	*75*	*120*	*58*	*95*
VI, VII, VIII	0·9	1·2	2·3	3·1
(Working)	*0*	*0*	*0*	*0*
All	1·8	3·4	5·4	8·5
No.	(1846)	(1879)	(1856)	(2246)

[a] Figures in italics give log distances – a form of disparity ratio in which the ratio P_{ik}/P_{jk} is converted into the distance measure $\log_e P_{ik} - \log_e P_{jk}$.
Source: Halsey *et al.*, (1980, Table 10.8).

TABLE 3. Percentage attending part-time further education by social class and birth cohort, England and Wales

Father's social class	1913–22	1923–32	1933–42	1943–52
I, II (Upper middle)	50·0	46·2	59·3	45·1
III, IV, V (Intermediate)	10·3	41·7	55·1	57·2
VI, VII, VIII (Working)	29·9	36·9	46·4	50·8

TABLE 4. Percentage attending any form of post-secondary education by social class and birth cohort, England and Wales

Father's social class	1913–22	1923–32	1933–42	1943–52
I, II (Upper middle)	60·6 *65*[a]	64·6 *50*	77·1 *44*	73·9 *30*
III, IV, V (Intermediate)	43·5 *32*	48·0 *21*	60·4 *19*	67·4 *21*
VI, VII, VIII (Working)	31·5 *0*	38·9 *0*	49·9 *0*	54·6 *0*

[a] Figures in italics give log distances (see Table 2).

by differentiating the opportunities available to those, whether qualified or not, who stayed past the minimum school-leaving age. All forms of post-secondary education have been selective in the sense of not being universal. And there has been a correlation between class origin and selective educational destination.

Trends in class access to part-time further education and to post-secondary education as a whole are shown in Tables 3 and 4. For part-time

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TABLE 5. Universities – home candidates and acceptances: by social class, 1981, 1984 and 1986, United Kingdom (percentages and 000s)

Percentage in each social class:	Candidates			Acceptances		
	1981	1984	1986	1981	1984	1986
Professional	23·1	19·5	18·2	24·5	22·1	20·4
Intermediate	47·8	47·3	47·6	48·9	48·2	48·2
Skilled non-manual	9·7	10·6	11·5	9·1	10·1	10·7
Skilled manual	13·5	14·1	13·8	12·3	12·4	12·5
Partly skilled	4·8	7·2	7·6	4·2	6·2	6·9
Unskilled	1·1	1·3	1·4	1·0	1·1	1·2
Total (= 100 %) (000s)	133·2	141·2	135·7	67·2	65·8	69·8
Not classified (000s)	16·1	15·3	15·9	7·3	5·9	7·1

Source: Universities Central Council on Admissions Statistical Supplements.

further education, class access has slowly changed with expansion from the familiar positive correlation of class and opportunity to an *inverse* relation for those born after the Second World War. Thus in the earlier decades it was not usefully seen as an alternative access route for the working class so much as an extension of class-biased educational opportunity. For the last cohort, born during and after the war, the alternative route description is more accurate. For the whole structure of educational opportunity beyond school it appears that expansion has brought a slow and steady diminution of class inequality. This trend is shown by the log distances in Table 5: that between the upper-middle class and the working class fell from 65 to 30 as between those born in 1913–22 and those born in 1943–52. In other words this is British evidence running counter to the hypothesis of stable relative chances. Nevertheless, inequality of class access remains. As may be seen from Table 5, comparatively high proportions of candidates from the professional and intermediate social classes (as defined by the Registrar General) were accepted into the university in 1984. The proportion of accepted candidates from the homes of manual workers was 19·7 % compared with 22·1 % from the professional classes. The relevant population proportions may be estimated at 30 % and 6 % respectively (Halsey, 1990).

In the present project it is intended to test the hypothesis of stable relative chances for classes and ethnic groups and women comparatively for the twenty OECD countries and for four countries chosen for detailed study.

4. The Hypothesis of Access Containment by Institutional Differentiation

With respect to the fourth hypothesis it is appropriate to emphasise the conception of education as a positional good (Hirsch, 1976). Expansion, as Table 6 illustrates for Britain, has been the dominant feature of the post-war period in all industrial countries. Absorption of the qualified has been partly

TABLE 6. UK higher education students (000s)

	1970/71	ADD	% ADD	1983/4
Full-time total	456·8	124·8	27·3	581·5
UK origin university	217·2	50·8	23·4	268·0
Public sector	215·1	50·8	23·6	265·9
From abroad	24·4	23·2	95·1	47·6
Men	274·2	50·2	18·3	324·4
Women	182·6	63·6	34·8	246·2
Part-time total	164·7	148·5	90·2	313·2
University	23·8	12·5	52·5	36·3
Open university	19·6	56·6	288·8	76·2[a]
Public sector	121·3	79·4	65·5	200·7
Men	142·0	68·0	47·9	210·0
Women	22·7	80·5	354·6	103·2

FT HE home students	1970/71	1980/81	1981/82	1982/83	1983/84
New students aged 21 or under as a percentage of 18 and 19 year old population	13·7	12·7	13·5	13·5	13·3

[a] Includes short-course students.

through relative increase in middle-class occupations and partly through 'graduatisation' of a wider range of professions. But the correlate has been intensified class competition for access, and there is evidence of a status reconstruction of higher education.

Both beliefs, or what Ralph Turner called folk norms, about education for élite status (Turner, 1960) and the structure of education itself are also involved. Thus, in comparisons between American expansiveness and British restrictions of higher education, attention is drawn to the 'contest mobility' of the American schools and the 'sponsored mobility' of British scholarship children. The structure of education is shaped accordingly in the two countries, encouraging ambition and discouraging drop-out in America and making exit normal at the end of the secondary stage and re-entry more difficult in Britain (Morgan, 1990). America has modular courses, credit transfer and a market facilitating 'working through college'. Britain has fixed competitive admission requirements, once-for-all graduating examinations and hitherto student grants covering tuition and maintenance.

Another sociological interpretation of these developments is that this positional good has retained restricted supply by institutional differentiation such that the advantaged strata have secured relatively more places for their children in the more prestigious institutions of an elongating hierarchy of

universities and colleges. Thus Paul Windolf, the German sociologist, has shown a trend during the expansive 1960s and 1970s towards, on the one hand, relatively higher rates of expansion at the lower levels, for example the *Fachhochschulen* in Germany, community colleges in the USA or the IUTs in France and, on the other hand, an increase in concentration of students of advantaged class origin in the Harvards and Stanfords, the *grandes écoles*, the Japanese ex-Imperial universities and the German faculties with a *numerus clausus*. In such ways is positionality transmitted to the next generation of students (Windolf, 1985). If further empirical enquiry confirms this polarising tendency the hope for increased openness by university expansion (Hout, 1988) may be disappointed.

Applying this thesis to the British case one can begin to see evidence of institutional differentiation in Table 7. The traditional male full-time undergraduate as a gentlemanly state pensioner had the smallest growth rate from 1970 to 1984. The part-time woman on a short-cycle course in the Open University had the greatest rate of increase. There is a developing institutional hierarchy from the top research universities down through the lesser colleges. Social closure contends with social mobility through education. A comparison of take-up by the social classes as between 1961 and 1984 in Britain shows that the Registrar General's classes I and II have increased their share of university places from 59% to 67%. But adjusting for the changing class base, that is, for the expansion of the professional and managerial classes, the picture emerges of increased absolute along with very slowly equalising relative class chances of access to the highest level of education (Glennister & Low, 1990).

This last point brings out the link between hypothesis 4 (institutional differentiation) and hypothesis 3 (on absolute and relative chances). Both are linked in turn to hypothesis 1 (on meritocracy): they make manifest the processes through which the drive towards access on merit is contained by social resistances rooted in class and status interests. One way in which the analysis can be carried further may be found in a study of the relative advantages of attendance at public and private schools in Britain (Halsey *et al.* 1984). The weight of factors that are alleged in various theories to account for the social composition of those given access to universities is there assessed by a regression analysis with university entrance as the dependent variable. It turns out that the gross differences between the alumni of public and private schools in chances of university entrance are insignificant when social background, length of schooling and A-level performance are controlled. At the same time it emerges that entrance to Oxford in the 1970s and 1980s has become markedly more meritocratic as measured by the A-level performance of those admitted, while the private schools still secure over half the places from a tiny social base of about 7% of the nation's children.

It may, however, be further remarked that meritocratic access for women has made rapid progress since the previously male colleges of Oxford have become mixed. For Oxford, as for higher education as a whole, ascription apparently resists merit more stubbornly with respect to class than to gender

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(Halsey, 1990). Educational systems thus stand in complex relation to modern societies. They manifest remarkable shifts of adaptation to changing circumstances. But they have yet to fulfil the social dreams of children of the enlightenment.

5. *The Hypothesis of Foreign Access and International Inequality*

To complete the broad picture of determinants of access to higher education it must be recognised that the system is increasingly global. I have referred briefly to the remarkable role played by western universities in the formation of political leadership in the Third World. There have also been economic motives, both collective and individual, at work through exchange schemes and economic aid. The development of the Erasmus scheme in Europe and the approaching 1992 integration of the European Economic Community are events that emphasise the importance of international access. But the question of the distributional effects of international movement of students and faculty is perhaps the least well explored of the five hypotheses. A future project will focus on the international migration of students. There are regularly published data collected by UNESCO and other bodies on inflow and outflow across national boundaries. A summary with respect to fifty countries is compiled in Tables 7 and 8.

There is wide variation of involvement with the world-wide industry of education and training. The USA is the leading producer of foreign students in absolute terms, followed by France Germany and Britain; but with France, Switzerland, Belgium and Austria the leaders in relative terms, i.e. as a proportion of their populations. China, Malaysia and Iran are the main consumers of post-secondary education abroad. The problem is to assess the distributional outcome for the skill components of the work force of these advanced and developing countries. Does the United States compared with, say, Britain give more or less economic value in these educational exchanges? Is there an economic-cum-cultural programme of international aid from rich to poor countries or is it a reverse pattern of creaming off talent for the more advanced from the less advanced economies? And what is the distributional pattern of opportunity for the student-sending countries? Does it equalise opportunity for young people within as well as between nations? The rise of international access to higher education has yet to be fully analysed in terms of shifts in national, ethnic, gender or class differences of opportunity and reward. I shall attempt to collect evidence so as to provide an answer to these questions and to trace the course of policy in various countries with respect to the terms on which foreign students are admitted and supported (Woodhall, 1987).

TABLE 7. Student receivers, 1980s (total: 50 countries)

Host country	Year	Population (millions)	Students (thousands)	Students/ population
United States	1986	230	350	1·52
France	1986	55	123	2·30
Germany, Federal Republic	1985	62	79	1·27
United Kingdom	1984	56	49	0·88
Italy	1983	57	28	0·49
Canada	1986	25	27	1·08
Lebanon	1984			
Belgium	1986	10	20	2·00
Saudi Arabia	1986			
Australia	1985	16	16	1·01
Austria	1986	8	16	2·0
Japan	1986	120	15	0·12
Switzerland	1986	6·5	14	2·15
Syrian Arab Republic	1985			
Egypt	1985			
Spain	1980			
Sweden	1984	9	10	1·16
Holy See	1985			
German Democratic Republic	1986			
Yugoslavia	1986			
Turkey	1986			
Greece	1982			
Netherlands	1985			
Phillipines	1986			
Czechoslovakia	1986			
Kuwait	1985			
China	1986	1000	4	0·0043
Cuba	1986			
Singapore	1983			
Denmark	1985			
Poland	1986	37	3	0·08
New Zealand	1986			
Ireland	1984			
Senegal	1985			
Algeria	1984			
Morocco	1985			
Cote D'Ivoire	1984			
Tunisia	1986			
Korea, Republic of	1987			
Qatar	1986			
Pakistan	1985			
Finland	1986			
United Arab Emirates	1985			

TABLE 7. (*cont.*)

Host country	Year	Population (millions)	Students (thousands)	Students/ population
Guatemala	1980			
Jordan	1983			
Panama	1985			
Congo	1982			
Honduras	1985			

TABLE 8. International student patterns: student senders (10k+) mid 1980s

Country	Number of students	Destination
Asia	428,769	(192k to USA, 88k to West Europe, 20k to Australia and New Zealand, 35 k to Middle East)
Europe	175,420	(32k to USA)
Africa	169,77	(72k to France, 28k to USA)
North America	69,792	(36k to USA)
South America	35,563	(17k to USA)
Particular countries		
China	53,378	(40k to USA)
Malaysia	38,980	(19k to USA, 7·6k to Australia, 4·5k to UK)
Iran	37,054	(11k to USA)
Morocco	29,683	(24k to France)
Korea	25,978	(17·5k to USA)
Hong Kong	24,293	(10k to USA, 6k to UK, 7k to Canada)
Jordan	24,410	(5k to USA)
United States	20,614	(3·4k to UK, 34k to France, 2·4k to Canada, 4k to Germany)
India	20,398	(16k to USA)
Japan	17,926	(13k to USA)
Canada	17,205	(14k to USA)
Syria	16,423	(6k to Lebanon)
Turkey	16,190	(10k to West Germany)
Lebanon	15,518	(5·5k to USA, 5·2k to France)
Indonesia	14,156	(8k to USA)
Egypt	11,393	
Tunisa	10,452	(7k to France)

Educational variation between Countries

If the above are the five hypotheses to be explored we can now elaborate our conception of educational systems as a process of social selection through which newly borns acquire educational qualifications. Using this sociological

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definition of the educational process it emerges that, compared with demographic and economic institutions, educational organisation is relatively highly varied between countries of comparable economic development. Thus Western European countries share a common family system and a fairly standard pattern of industrial structure, high income, low fertility and extended longevity. They might therefore be expected to have similar rates of inter-generational social mobility. But their educational arrangements vary enormously for historical reasons. Consequently sociological comparison of the outcome of social selection through education may well end up in historical peculiarities even if the outcomes are found to involve similarity of relative mobility rates.

In this context the work of Walter Mueller at the University of Mannheim is of special significance (Mueller & Karle, 1990). The CASMIN study on which he has worked has, generally speaking, revealed that behind sharply different national rates of mobility there is a basically common pattern of relative mobility or 'social fluidity', which can be seen only when variations in occupational structure (arising from the date and type of industrialisation) are allowed for. Thus American exceptionalism is shown to be a myth and the outcome of what Ralph Turner contrasted as the sponsorship system of selective education in Europe and the contest system of the United States nevertheless produces similar inter-generational outcomes.

Even so Mueller is able to identify in Europe a relatively open system in the UK and relatively closed systems in France and Germany. He illustrates the differences by showing that recruitment to high professional qualifications from children of the service class is low in England and Scotland and high in France and Germany. Most of Mueller's findings are neither new nor surprising. There is much variation in the education and the educational credentials received by the offspring of different social classes. The rate of selection is generally less severe at later compared with earlier transitions or branching points in the various educational systems. But, though not completely so, class effects on selection are similar in European countries from Poland to Ireland. And it has proved easier to raise the general probability of survival to the more advanced stages of schooling than to change the class-biased character of selection in the educational system. Yet nations do differ in their distribution of education to the various classes and Mueller ends with the assertion that in 'order to understand – and perhaps explain the institutional differences between countries, it seems indispensable to explore the specificities of the different educational systems, to study their historical developments and to investigate in which way they are linked to other characteristics of societies' (Mueller & Karle, 1990, p. 26). I want to pursue this lead.

The proposed study is ambitious enough. Yet behind it lie the two competing giants of liberalism and Marxism with their opposed general conception of the nature and dynamics of industrial or post-industrial and capitalist or post-capitalist society. Research on the relation between education and economy over the past two decades has largely, if often tacitly, been

conducted as application of these two contending traditions of social and political thought and the research outcomes have served both to expose their strengths and weaknesses and to demonstrate modifications in their essential theoretical constructs. The study of schools and labour markets and their interrelations has revealed evidence damaging to both traditional positions, forced many 'humanist' Marxists to reconsider the pre-eminence of structure as against agency, compelled many liberals to acknowledge the stubborn power of ascriptive forces in class, race and gender and challenged both in their respective versions of a 'logic of industrialism' with its underlying historicist assumptions. Out of the research evidence has come renewed justification of the liberal idea of voluntarism and renewed disconfirmation of the Marxist view that history is made 'behind men's backs'. But the same body of evidence also reaffirms the infirmity of theories of progress towards collective prosperity, social openness and individual freedom through the combination of educational expansion and technological innovation in industry so confidently proposed by the Victorian Alfred Marshall and his liberal descendants in economics and sociology (Marshall, 1872; Kerr *et al.*, 1960; 1973; 1983; Bell, 1973).

The significance of education in the political economy of modern society differs sharply in liberal and Marxist theory. For liberals it is central to the determination of both production and distribution. For Marxists it is a dependent variable about which Marx himself wrote little. In more recent writing the contrast continues. In liberal theory the development of industrial and post-industrial societies involves a progressive upgrading of the skills demanded in the economy (both high scientific manpower and technological culture). The structure of employment shifts with advancing technology from unskilled manual labour to diverse non-manual professional and managerial jobs, requiring ever more elaborate education and training. This upward movement accompanies the shift of modernising economies from primary to secondary to tertiary sectors of production, i.e. from agriculture to manufacture to services, reinforcing the demand for skilled labour, professionals and managers, and from private to public sector activity. The vast movement of educational expansion is partly explained in terms of burgeoning economic demand and in the human capital theory applied to Third World planning (Schultz, 1961) where the expansion of schooling came to be seen as a process whereby supply could be expected to create its own demand.

The Marxist view is completely to the contrary. Instead of upgrading there is degrading. In his *Labour and Monopoly Capitalism*, Braverman (1974) argued that capitalist society, with its scientific management in the service of exploitation of the proletariat, systematically involves the degradation of employment. The labour process in this view must be simplified and de-skilled to satisfy the employers' need for both productive efficiency and the social control of workers. The agenda for education is accordingly different. Whereas for liberals the shape, direction and pace of educational expansion is problematic, for Marxists the focus is on the internal stratification of

educational systems in capitalist societies and the anticipatory socialisation of workers' children for their ascribed proletarian role in the discipline of industry. Thus at the centre of the liberal literature is Martin Trow's theory of stages of expansion from élite through mass to universal higher education [1] and Dan Bell's characterisation of the university as the gatekeeper to occupational placement (Bell, 1973) while at the centre of Marxist analysis is Bowles and Gintis's correspondence theory of the regime of control of schools and workplaces (Bowles & Gintis, 1976) and the French structuralist Bourdieu's theory of cultural capital explaining class differences in educational success and certification (Bourdieu & Passeron, 1977; Bernstein, 1971–75).

Marxist views concerning social mobility leave little room for consideration of the well-documented patterns of upward mobility through education which have been a prominent feature of the link of education to occupation and class in the twentieth century. Nevertheless the liberal theories of meritocracy and the movement from ascription to achievement are not in themselves confirmed by the disconfirmation of Marxist belief in the degradation of labour and the unimportance of mobility. The research evidence certainly shows a great deal of movement, including intergenerational movement through education, as the structure of employment in advanced societies (and earlier in the century the differential fertility of class groupings) enlarged opportunities in the professional, managerial and technical occupations. But structural mobility has to be distinguished from exchange mobility for it is the latter, *measured in relative terms*, that denotes the degree of openness of a society. The evidence is disputed but certainly cannot be claimed to uphold the optimistic theories commonly advanced by liberals (Halsey, 1977) [2].

The postulated emergence in America of an urban underclass has been of particular concern to liberal optimists. For the typical recruit to it seems to be a young person with a background of school failure who lacks the motive, the skills, the qualifications and the traits of personality to enter successfully into the formal economy. Research on the underclass to describe empirically its characteristics and prevalence is not yet adequate but began in the late 1980s with the appearance of William Wilson's important book (Wilson, 1987). Meanwhile the demonstration through social research of limits on exchange mobility, the elusiveness of meritocracy, the persistence of class difference in educability and the continuance of, albeit classless, inequality of income and status have been factors generating pessimism rather than optimism in the liberal camp.

There is ample research evidence from most countries that education and occupational level are strongly correlated – the thesis of a tightening bond between education and occupation is securely established. The strongest beta coefficient in path diagrams analysing the determinants of occupational position, since Blau and Duncan's analysis of American occupational structure in 1967, has been consistently drawn from the respondent's education to job as distinct from their father's or mother's education or job or any other

background variable (Blau & Duncan, 1967; Halsey *et al.*, 1980). More recent evidence from British studies (Payne, 1985, 1987; Raffe, 1984; Junanker, 1987; Payne & Payne, 1985) also demonstrates that school qualifications have improved the chances of avoiding unemployment in the period of economic recession from 1974 to 1981, that as youth unemployment and overall levels of certification have grown so have the differences between the job chances of the qualified and the unqualified (Payne & Payne, 1985). It does pay to stay on at school. And more generally, with regard to the alleged underclass, Joan Payne has used data from the British 1980 and 1981 General Household Surveys to show that the young unemployed are three times more likely than their employed peers to have parents or brothers or sisters who are also out of work (see also Raffe, 1984, Ch. 9). The reasons are complex, including variations in local labour markets and residence in particularly deprived inner city or corporation estates (Payne, 1987), but there is also a tendency for unemployment to run in families – another facet of the survival of ascription in an achievement society.

Conclusion: the research design

The burden of this review of the relevant literature is to show that, while the strategy of the study is to treat educational access as the dependent variable of major social, economic and political forces, the leading hypotheses of the sociology of education which I have extracted bring out the *interactive* character of the dependency of education.

Thus, although expansion has typically been justified in terms of merit (hypothesis 1), there is also much evidence that ascriptive forces continue to determine the patterns of access to education among classes, ethnic groups, etc. So the task is to use the meritocratic model deployed in the British study (Halsey, 1977; Halsey *et al.*, 1980) and apply it to other countries that have a different scale of educational provision beyond the secondary stage. Similarly, expansion has led to credentialist inflation (hypothesis 2) (Dore, 1976; Collins, 1979), which indicates that the determinants of access are, at least in part, rooted in status struggles for educational advantage at different stages of economic development. So the task is to define what are the status struggles in different countries at different stages of economic development. Third, the outcome of expansion is that disadvantaged groups gain access absolutely but not necessarily relatively in comparison with advantaged groups (hypothesis 3). The determinants of access therefore lie partly in the differing resources and educational potential of children of different material and cultural background. Fourth, an important set of determining processes may be at work to shape access (hypothesis 4) in the institutional structure of education itself. Elite universities, Wildorf has claimed, may constrict their social recruitment while general expansion provides mass higher education. This hypothesis needs further empirical check. If it survives detailed testing in a range of countries, then the theory of education as a positional good will have

TABLE 9. New entrants to higher education

	Year	Age range containing 70% new entrants	Participation rate (per 100)	Percentage entering university	Typical duration of course (years)	
					Universities	Other colleges
France	1982	18–20	34	67	4	2
Germany	1984	19–21	27	65	4	3
Italy	1984	19–21	28	96	5	2
Japan	1984	18	38	70	4	2
Netherlands	1984	18–20	38	33	5	4
United Kingdom	1984	18–20	31	32	3	2/3
USA	1984	18	60	44	4	2

Source: Department of Education and Science, *Statistical Bulletin*, 4/87, March 1987.

been significantly extended and the interrelatedness of hypotheses 1, 2 and 3 with 4 will add coherence to an otherwise loosely connected literature in this field.

Finally, I have produced illustrative international statistics to suggest that the determinants in national systems of access to higher education may also operate internationally (hypothesis 5). Viewed as a global system, the expansion of educational opportunity may composite the tendency towards stable relative combined with rising absolute chances for the disadvantaged nations and social groups. But this, also linked, hypothesis needs much more empirical evidence.

The pursuit of these five hypotheses constitutes the substance of an attempt at synthesis focused on explaining the variations of access to higher education against a background of more or less world-wide expansion of provision. I have briefly sketched the competing general theories bequeathed to us from Marxist and liberal traditions of thought, critically rejecting Marxist theories of economic determinism but also questioning the classical liberal assumptions that support the (historicist) idea of ineluctable progress towards universal access to ever-rising levels of education. My completed work holds out the promise of a more realistic account of recent history and future possibilities for widening access.

Because of differing traditions and terminology, international comparisons always present a minefield of difficulty. Countries vary with respect to the starting age of preparation for entry into higher education, the number of years of study involved, the age of entry and the level of attainment required. One standard formula for comparisons of entry to higher education has been set out by OECD. It covers all new entrants irrespective of age. New entrants are defined as first-year students, excluding those already qualified in higher education, such as postgraduates. The relevant year group recommended by OECD is the total population of the age-range which includes 70% of new entrants, divided by the number of years involved. New entrants to part-time study are included. Table 9 gives participation rates on these bases and other relevant data for new entrants.

An alternative approach to comparison is to compile total student enrolment – a figure often available from international sources. But such figures can be misleading as a guide to participation in higher education because of varying course lengths and wastage rates. Such figures can, however, be used to compare and contrast the structure of higher education in different countries. Table 1 gives an example for the mid-1980s.

In future work, as indicated, I propose to illustrate the general findings by a detailed discussion of four countries in which I shall not only test each of the five hypotheses but also describe shifts in policy debate and action over the past two generations.

Notes

[1] In his most recent writing Trow disavows the impression that his thesis was advanced as an inherent law of motion in modern society. It was intended as a rough model of historical experience, serving to highlight the deviation and problems of particular countries (Trow, 1987).

[2] In an interesting new analysis of mobility in the United States Hout (1987) puts optimistic emphasis on the random relation between social origins and occupational destinations of American graduates. But more evidence is required before the new version of social openness through educational expansion can be accepted.

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Schools of Education and Teacher Education

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1. Introduction

There is at present a powerful, but by no means universal, tendency to incorporate the training of teachers within universities. This is one reason why the present paper will concentrate on the implications of that association. Such a focus will reveal many of the particular characteristics of teacher training (or teacher education, for the two terms will be used interchangeably). For much of its history teacher training has suffered a shifting and ambiguous relationship with what is now defined as higher education: indeed, it has until recently often been regarded as part of the system of lower schools. This is precisely why its relationship to the university, as traditionally constituting the most elevated part of higher education, can be especially revealing.

Throughout this paper attention will be directed to the differences between national systems rather than the similarities among them. There is a good reason for this. Patterns of schooling, although comparable at a superficial level, often embody widely different concepts of the purposes of that schooling, and therefore of the nature of teaching in the public schools. At the same time, the wide use of the term 'university' conceals fundamental variations in the ways in which it is defined. Even within the Western tradition, with which this paper will be primarily concerned, the meaning of an apparently simple term shifts across time as well as across space. Such shifts have a uniquely direct impact on the institutional arrangements for the education of teachers.

Universities and the delivery of teaching to students have always been intimately linked, and it is precisely this intimacy that has generated problems over time. It was one of the primitive functions of universities to prepare scholars, by imparting to them the necessary basis of knowledge, and then formally licensing them to teach. The possession of a recognised degree was precisely such a licence, which is why so much importance was attached to the legal status of the universities themselves and why a university, unlike a school or a college, could not exist without a charter. A teacher so licensed by a university could therefore teach within that university and in comparable

institutions. At the same time, the institutional and territorial boundaries of the university – which had the characteristics of a guild or association of teachers, rather than of a formal establishment with its own buildings and resources – were much less precise than they were later to become (Rashdall, 1942). The modern distinctions between higher, secondary and primary education belong for the most part to the twentieth century. Teachers with university approval taught students of varied ages and in varied institutions: the wide and imprecise use of the term college illustrates this well. They were, however, concerned only with higher knowledge (demonstrably a relative term), and not with the teaching of the basics or rudiments to very young pupils. Nor was the university concerned with what would now be defined as pedagogy: the content of knowledge was, as it often still is, believed to subsume the methods of teaching it.

Even the dramatic growth in the nineteenth century of a relatively well defined sector designated as secondary education did not fundamentally disturb this pattern. Universities prepared, by a grounding in subject knowledge, teachers of students both in universities and in the academic 'secondary' schools whose explicit function was the preparation of students for entry to the university. There was no concern with pedagogy or methods of teaching, and none with the preparation of teachers for the more elementary levels. These, when formally organised at all, were conveyed to new and specialised institutions, the normal schools. The latter were not regarded as in any sense belonging to the emerging world of higher education with its secondary satellites.

In the twentieth century two parallel developments, both associated with the democratisation of education, placed this traditional system under severe stress. The expansion of secondary education weakened its historic links with the university: most of the students of the secondary schools would not go on to university and the teachers for them needed some special form of preparation for the new tasks. Who was to provide that preparation? At the same time, the universalisation of primary/elementary schooling generated a demand for many more well prepared teachers of some quality. Who was to provide the preparation for them? And how were these two new tasks to be related or even integrated?

These three questions will be pursued in each of the three case studies that follow.

2. England

The analysis offered here relates primarily to England: both history and current patterns in Scotland are so different as to make any common treatment unhelpful (Cruickshank, 1970). In Wales and Northern Ireland, on the other hand, the position is in most ways comparable to that in England where, as in

most European countries, the history of teacher training has been entwined with a dual system of public schooling (Dent, 1975).

Until 1944, secondary education was regarded as a privilege for the few, and a privilege that might be purchased at a private school or earned in a competitive examination taken by some pupils at the age of eleven. The emphasis in both of these types of schools was upon a grounding in academic subjects as defined by the dominant university, and the teachers in the schools were themselves educated at the universities. For such intending teachers a voluntary and relatively undemanding postgraduate course of training was provided, but such preparation did not become more or less obligatory until the 1970s. The fact that even then exceptions and exemptions survived demonstrates that the essential core of preparation for secondary school teachers, as at a higher level for university teachers themselves, was defined as the acquisition of subject-mastery (Thomas, 1990).

Most pupils in the public system were not, however, encouraged to aspire towards this élite form of secondary education: until the Education Act of 1944, they remained in the elementary schools, they had attended since the age of five. After the 1944 reforms, they were transferred to schools called secondary modern which, as a general rule, provided only short courses of secondary education terminating for pupils at the age of 15. Elementary schools had existed in England and Wales since the early decades of the nineteenth century but most teachers in them had not received any form of education beyond the elementary. The Christian churches did, however, build and support training colleges, and as the state also began to provide such colleges from the early twentieth century they became the normal route for entry to elementary teaching. From such activities, the universities remained detached, although in the years before the Second World War some universities were persuaded to co-operate in raising the standards of elementary teacher training – notably by a system of examinations. The level of recruitment to the training colleges was, in terms both of age and even more obviously of academic standards, lower than for the universities. The two systems of teacher preparation, as of schooling itself, remained fundamentally distinct.

That distinctness was softened but not eliminated as, during the 1950s, the training colleges were loosely associated on a regional basis with the universities (Turner, 1990). More fundamental change was generated in the following decade as the dual system of secondary schooling came increasingly under attack. As comprehensive schools were created it became increasingly unrealistic to claim that the universities, by academic preparation supplemented in many cases by one year of professional formation, prepared teachers for academic secondary schools while the training colleges were confined to more basic tasks. At the same time, the colleges themselves were able to raise their standards of admission, to extend their courses from two to three years, to grant (with university support and accreditation) degrees to a minority of

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their more able students (Niblett *et al.*, 1975). Significantly, they were renamed as colleges of education, although efforts to incorporate them fully within the university structures were not successful. That opportunity was not to be repeated.

Government decisions taken in the mid-1960s led to the formulation of the so-called binary policy, under which a second sector of higher education was created alongside the universities. This second sector, for which no satisfactory label could be found, included the newly designated polytechnics and was to be distinguished by an emphasis upon teaching rather than research, on applied rather than pure research, on utility rather than scholarship, on technology and the sciences rather than the humanities, and on responsiveness to local needs rather than purely national priorities (Becher, 1987). For these reasons it was, until 1988, to remain under the control of local rather than central government. In these circumstances, it is hardly surprising that most of those institutions that had been created as training colleges were absorbed into this second sector of higher education, rather than into the universities themselves. Moreover, the demographic changes and predictions of the 1970s enabled the governments of the day to undertake a fundamental reshaping of provision for teacher training. Fewer training places would be needed and some colleges could therefore be closed and others incorporated into polytechnics or colleges of higher education, where future teachers could be educated not in their traditional isolation but alongside students preparing for other careers (Hencke, 1978).

Some of the consequences of these changes have been surprising, and perhaps unintended. There was, as already stated, a significant reduction in the overall number of places provided for teacher training outside the universities: from 130,407 in 1972 to 36,000 a mere six years later. The harshness of the absolute distinctions within teacher education has been softened. In 1950 it could be assumed that the training colleges prepared teachers for the elementary (by now retitled primary) schools through a two-year programme leading to the award of a simple certificate, having little or no connection with the university. Teachers for the academic secondary schools, on the other hand, followed a traditional three-year course leading to a university degree in a well-defined area (such as history or physics), followed by an optional one-year course dedicated to teacher preparation. These, respectively, were the so-called concurrent and consecutive models of teacher training, the former being confined to the non-university sector and to the primary phase of public schooling. The successive reorganisations of the 1970s produced a less fragmented, if more confusing, pattern. The old symmetries were broken, the university became involved in primary as well as secondary schooling, albeit on a relatively minor scale, and an increasing proportion of intending teachers outside the universities (about one-third by 1987) followed the consecutive rather than the concurrent route to licensing and certification. One result of this shift, strengthened by an apparently unavowed protection of the university sector, was to increase the share held by the universities in the

whole of the teacher education market. Admission to university-based courses of teacher education amounted to only 4·4% of the total in 1972, but to 32% in 1987. Between 1970 and 1983 the number of institutions outside the universities offering courses of teacher training was reduced from 180 to 56, while the number of universities making such provision remained constant at 27. The colleges of education were absorbed into new institutions of higher education, including the polytechnics, and students in them proceeded through what became a four-year course leading in all cases to the award of a degree, the Bachelor of Education. Alongside these students was a growing number who first took a degree with a subject-matter base and then – on the old university model – a one-year course of specific teacher training. About one half of the students in this category in 1987 went on to become teachers in the secondary schools. These degrees and awards were in most cases made not by the universities but by a national body specially constituted for such purposes, the Council for National Academic Awards (CNAA) (Judge, 1990).

In England and Wales, therefore, schools of education – to employ the usefully generic term – are to be found inside and outside the universities as formally defined. They educate and train teachers for all types of school and through each of the well-established British patterns, the consecutive and the concurrent. By the late 1980s, it had become increasingly difficult to discern or define a specific and distinctive university contribution. Later developments will be discussed, alongside those in France and the United States, in Section 5.

3. France

In France the development of teacher education, and its intimate association with the university, have been continuously and profoundly affected by the rigid distinction between the various orders or degrees of education; indeed, the classificatory terms of primary, secondary and higher (now taken for granted in most societies) were apparently invented during the French Revolution. But in France the concept and functions of 'the university' have been so profoundly marked by the national history that the use of the term seems to have little in common with practice in England and other European countries, and, still less, with the United States. Before the Revolution of 1789 French universities had much in common with their European cousins: indeed, Oxford was founded in the thirteenth century as a result of a migration from Paris. No clear distinction existed during the *ancien régime* between secondary and higher education, or between schools and universities (Brockliss, 1982). The *collège* taught students for the examinations and degrees of the university (for example, that of Paris) which itself enjoyed a somewhat nebulous existence: the status and role of what would now be classified as secondary school teachers were therefore as profoundly affected by the events of the 1790s as was the university itself. The French universities shared the prejudices of those elsewhere in Europe in claiming a monopoly of teaching,

and it was for precisely that reason that they were destroyed in the Revolution as corporate bastions of antique and irrelevant privilege alongside the Roman Church, the effete aristocracy and the restrictive guilds (Palmer, 1980).

Napoleon was as intolerant of academic as of any other form of anarchy, and the University of France which he created dominated until very recently (as its ghost still dominates) the principles and organisation of the whole of French education (Moody, 1978). The institution, which he created in 1806 and endowed with a Grand Master, was to supervise *all* levels of public education and to integrate them in a centrally directed and managed system. The *Université de France* was not a university in any conventional sense but a state apparatus embracing the orders of teachers and placing them in appropriate hierarchies related to their qualifications and loyalty to the service. In institutional terms, the peak of the university was represented by the *lycées*, institutions of secondary school character created by the Emperor to replace the *collèges* of the old regime and handsomely endowed with scholarships. The intention was that able students graduating from the *lycée* with the significantly named baccalaureate degree (unambiguously a university award) should proceed not to what other countries might describe as a university (which did not formally exist) but to one of the newly created or revived special schools – of engineering, mines, highways, medicine, teaching. The *École Normale Supérieure* (ENS) was created in 1808 precisely in order to train teachers of quality for the *lycées*. As one of the *grandes écoles* it occupied, and indeed still occupies, a dominant place in the intellectual life of France. But, curiously for the foreign observer, it neither was nor is part of the university (Magliulo, 1982).

Teachers in the *lycées* were dignified with the jealously guarded title of *professeur*. To occupy a tenured position they were required to pass the examination for the *agrégation* (literally, of incorporation within the university). Those who had previously attended the ENS had already been paid during their training and were for that reason committed to a substantial period of service to the university. All *lycée* teachers were *fonctionnaires* – a term for which civil servant is an inadequate translation. They were members of a national service but organised regionally. France was divided into *académies*, of which there are at present 26, each of them placed in the charge of a *recteur* appointed by the officers of the university in Paris to superintend the delivery of education, and especially of what would now be classified as secondary education, within the limits of his delegated jurisdiction. The dominance of university or academic language in the administration of secondary schooling is striking: university, professor, incorporation, academy, rector, Bachelor of Arts. Even more remarkable is the resilience and durability of the system and of the values it embodies. Many of these structures remained in place for virtually the whole of the nineteenth and twentieth centuries (Lewis, 1985). The University of France may have been abolished but its ghost nevertheless sat crowned, to adapt the Hobbesian phrase, at the headquarters of the Ministry of National Education in the rue de Grenelle. The academies

and the rectors are in the 1990s alive and remarkably active: perhaps even more than before as decentralisation and deconcentration are attempted in France. The *lycée*, in spite of remarkable changes to its organisation, remains the central institution of the French educational system. The *professeur agrégé* is still entrenched as the champion of the traditional academic values of French secondary and higher education. His heart is in the university or the ENS that formed him. The knowledge he needs to demonstrate before admission as an *agrégé* is of course essentially academic: with exceptions to be noted below, a very low priority is accorded to any form of professional training, and such as is required is delivered by the inspectors and the education service itself, rather than by the university. The education of the *professeur* is in and by the university, as it has now evolved far from its Napoleonic roots, but it is an academic education in content knowledge. The university of the 1980s had little part to play in the professional or vocational preparation of teachers. How far this will change remains, at the time of writing, an open question (Peretti, 1982).

Unsurprisingly, the supply of *agrégés* has rarely been sufficient to meet the needs of the schools, although this most prestigious group of teachers has been successful in maintaining a dominant position. In the 1950s, a second group of formally qualified academic teachers was introduced, together with a new qualification, the CAPES. At the same time, the opportunity was taken to strengthen – albeit outside the university structures – the field-based vocational preparation of such teachers. The CAPES teachers had first to satisfy the appropriate juries that in terms of subject knowledge – the *connaissances* – they were worthy of promotion to a rank that would increase their pay and reduce their teaching load. The academic competition successfully completed, the newly promoted CAPES teacher was required to spend time in a *centre pédagogique régional* (CPR), while also undertaking somewhat reduced teaching responsibilities. One of the inspectors of the academy was director of the centre, in the work of which many state employees were similarly engaged on a part-time basis. The vocational preparation furnished by the centre enjoyed a relatively low priority, in the eyes of those providing as of those receiving it. The distance between the centre and the universities, as the latter were reconstituted after 1968, remained great with little sense of a shared agenda. The creation after 1967 of a number of departments of the sciences of education within the universities contributed little to the integration of the scholarly study of education with the professional preparation of teachers for secondary schools.

Teachers for the primary schools were, from the earliest days of public schooling in France, employed and trained within a very different framework of assumptions and institutions (Berger, 1979). Until the 1960s, the common assumption was that the distinctions between primary and secondary education were absolute, and the former was not designed to lead into the latter (Desbrousses, 1982). Many of the *lycées* maintained their own preparatory departments precisely in order to protect this distinction. The primary sector

championed the popular values of republicanism, laicity, utility, and in effect it trained its own teachers in order to induct them into these values (Gauthier *et al.*, 1986). The training of such teachers was not a matter with which the university could be expected to concern itself, although the *académie*, in so far as it was itself a formal administrative manifestation of the university, was given major responsibilities for the management of the training of primary school teachers as for the supervision of the whole of the primary sector. It was not until 1889 that the *instituteurs*, another untranslatable term that identifies the primary school teachers, became employees of the state rather than of the local communities. The most elevated of the secondary school teachers, on the other hand, had always been regarded as members of a national corps, that is of the university. The nineteenth century saw a rapid growth in the number of *écoles normales*, and after the reforms of Jules Ferry at the beginning of the Third Republic, the law required that two should be established in each *département* (Gaillard, 1989). Special national institutions – again, outside but not inferior to the university – were established in order to train the *professeurs* for the normal schools, as well as for the upper primary schools which grew within the system alongside and in some senses in opposition to the classical *lycées*.

So firmly embedded within the primary order were the normal schools that admission to them was for many years at the age of about 13 and by direct transfer from the elementary school. The level of age and ability required for entry rose steadily over time: first to a stage two years before the bac, and then after the bac. There followed an uncomfortable period when student teachers earned a university qualification while being trained at the *école normale* itself, and with the participation of university teachers (Bourdoncle & Zay, 1989). Then two and later three years of education at the university itself were required before admission to the *école normale* – which therefore preserved a total responsibility for the two-year phase of professional training which followed. The normal schools had originally provided some form of 'higher' education for many of the products of the primary schools. That education necessarily included a large measure of general education (without which the *instituteur* would have nothing to teach) and a rigorous preparation for the practical tasks of teaching. As they came to admit only students who had completed a full cycle of higher education in a university, that dual role was no longer open to them. At the same time within the secondary sector the rapid social changes accomplished between 1960 and 1980 challenged the orthodoxy (comparably threatened at the same time in England) that universities were inherently well adapted to prepare teachers for secondary schools, given that these schools had by historic definition been academic. The challenge to the *lycée* as defined and developed in the years before the Second World War was articulated in official reports as early as 1947. The progressive response to that challenge took the form of the introduction of a greater measure of flexibility in the early years of what had been defined as secondary education, leading eventually to a formal separation of the first and second cycles of secondary

education and the exclusion from the *lycée* of pupils below the age of 15. The college of secondary education (the CES) became the novel, universal and comprehensive school for students between the ages of 11 and 15.

The strength of the teacher education system, and the close academic association of the secondary school sector with the values of the university, were now in danger of becoming weaknesses. It was, by 1970 at the latest, no longer the case that the normal schools admitted students leaving primary schools and prepared them within an effective and value-laden system to become teachers in those schools. By 1990 all those intending *instituteurs* had themselves received some form of university education. It was, by 1980 at the latest, no longer the case that the *lycée* admitted only pupils who could at least plausibly be supposed to have academic aspirations and aptitudes: national planning in the late 1980s required that by the end of the century 80% of each age-group should attain the level of the *baccalauréat*: no statistic could be more eloquent than that. Moreover, between the primary school and the upper secondary school there now sits the CES with a new range of curricular and pedagogical tasks. Neither of the two traditions of teacher education – the one linked to the university and the other embedded in the primary ideology – could be well adapted to meeting this new set of needs.

A system based upon rigid classification responded by seeking to invent a new category of teacher: the PEGC (roughly, the teachers of general education in the colleges). But no clear set of principles matching those that validated the status and roles of the *professeur* and the *instituteur* was, or perhaps could have been, developed (Hamon & Rotman, 1984). Characteristically, the French spirit – emphasising *les connaissances*, hard knowledge of established material, programmes of instruction – distinguished between the now blurred categories in terms of the number of subjects mastered and to be taught: one for the *professeur*, two for the bivalent PEGC, and several for the polyvalent *instituteur*. Many primary school teachers were metamorphosed into PEGCs. In order to assist such transformations and to induct new bivalent teachers, centres for the PEGC were created from 1960. Interestingly, they were placed in normal schools and under the control of the director. In some cases, arrangements were made for such candidates to receive some university instruction and increasingly many of those coming to the centres had completed at least the first phase of a university education. By 1990, therefore, the former geometric clarities had been destroyed. In principle, the university was to educate, for at least three years, all future teachers, of whatever category (Charles, 1988). Those going on to become primary school teachers then transferred to the normal school for a course of professional preparation together with a reinforcement of general education (for they would need eventually to teach several school subjects). Those aspiring to the heights of secondary school teaching did battle in the academic competitions for the *agrégation* and the CAPES. After their academic successes they were required to undertake professional work in a CPR and to demonstrate their competence to their administrative superiors: this was not part of the essential work of a

university. The hybrid category of PEGC, together with the centres in which they had been trained for the past 20 years, had been abolished after a series of complex political and union wrangles. This much in principle, although many teachers were employed (as they always had been) in schools under various provisional licensing arrangements in order to remedy immediate shortages.

The problem of how this new agenda for teacher training might be related to the university would have been sufficiently complex, even if the university itself had not in the intervening decades undergone fundamental change. But, of course, it had. The relative weakness of the nineteenth century French university system was widely lamented by French scholars at the time, and will be sufficiently clear from what has already been said in this section on the role of the (Napoleonic) university (Weisz, 1983). The *grandes écoles*, including the four ENS, existed outside the university framework, as did other prestigious national institutions such as the *Collège de France*. Even after the reforms of the 1890s, universities in the German or American sense could not be said to exist. Separate faculties (of arts, science, medicine, law) did flourish in some provincial centres, as in Paris itself, although they long remained intimately connected with the *lycées*. Such faculties within an *académie* were allowed to group in weak confederations, but the dispersed universities thereby created enjoyed neither effective self-government nor any sense of corporate identity. The reality and the myth of *the* University of France, living in its *académies* and its *lycées*, was overpowering and the tutelary hand of Paris ever present. The dramatic events of May 1968 shattered this set of assumptions and procedures: in an astonishingly short period of time, faculties and departments were required to group themselves into new universities (13 of them in Paris alone), although the Ministry – as the heir of the National University – continued to exercise very wide powers (Minot, 1983). The relationship of the (historic) university embodied in the ministry and the rectors, the 70 (new) universities and the diverse establishments of teacher training remained highly problematical.

4. The United States

The history of the university and of its connection with the preparation of teachers is, in the United States, relatively brief but uniquely rich. It is in that country that the school of education from which this paper takes its title exists in the most fully developed and varied forms. The characteristics of the university association with teaching in the lower schools is, as in the other two case studies reviewed here, largely determined by the nature and structure of those same schools. Although there were some colonial precedents for a secondary high school on the academic European model, the dramatic expansion of secondary schooling which began in the late nineteenth century was achieved in large measure by an upwards expansion of the common (elementary) school. The secondary school was not, as it had been in European countries, an extension or outpost of a university dominated by classically

academic values. It was provided and managed by the same local community that supported the elementary school that preceded it (Cremin, 1964). Significantly, grades in American schools are numbered continuously from one to twelve, from the beginning to the end of a regular school life. In France and the United Kingdom the equivalent sequence begins only with the initiation of the secondary school experience – even if the French then count from six to one and the English from one to six. Numbers and conventions transmit powerful messages.

Equally distinctive in the USA has been the relationship between a common and fundamental schooling for all and the pattern of control and policies within higher education. Higher education has remained open to the development of schooling as a whole (Veysey, 1965). There was and is no central power to determine patterns of institutional development in the context of a national set of policies. As a result, American institutions have been – some have argued to an unhealthy degree – more directly responsive to the changing needs and demands of society. Distinctions among colleges and universities have remained fluid, and teacher education is currently offered in a wide range of institutions – some 1300 in all – ranging from small four-year private colleges to gargantuan public universities. As rigid or bureaucratically determined distinctions between elementary and secondary teachers did not exist (for they would have served no useful purpose), hermetically sealed traditions of teacher preparation for the two phases of schooling did not develop. On the contrary: the early and private normal schools, beginning in Massachusetts and recruiting students from the elementary schools in which their own graduates would teach, were soon joined by similar public institutions. Many of these normal schools became, by the end of the nineteenth century, teachers colleges which were anxious to attract students from and for the secondary schools.

As a result of the expansion of secondary schooling which they helped to accelerate by providing competent teachers, institutions within the normal tradition were able to recruit as students graduates of the secondary school and so themselves complete the significant transition from normal school to teachers college. They had always professed to offer a general education appropriate to the age and attainments of their own students as well as a formal preparation for the career of teaching, and now sought to redefine in wider terms their own purposes. Such a redefinition enabled them to admit students who did not intend to become teachers, as well as those who did or who were uncertain, and so effect a further transition from teachers college to state college. In the buoyant years after World War Two the state colleges in turn became state universities, in many cases enlarging their horizons beyond the first four years of higher education to embrace graduate work. The education of teachers was therefore the *original purpose* of many modern universities. The university monopoly of teacher education was further strengthened by a corresponding, if more uneven, adjustment in the mission of universities with a very different ancestry. In the last quarter of the nineteenth century several

of the most ambitious of those universities – including Stanford, Columbia, Chicago, Michigan and Harvard – added professors of education to their faculties as well as departments or schools of education to their activities. The purposes of such developments were not always clear, even to those who initiated them, but they included an interest in a share of the growing business of training secondary school teachers as well as developing a research tradition. By 1950 the ring of the university monopoly of teacher education had been closed (Clifford & Guthrie, 1988).

But monopolies generate their own problems. The American university can neither ignore teacher education nor embrace it with unreserved enthusiasm. Part of the explanation of this deep-seated ambivalence is historical. Teacher education is embedded within undergraduate education in the arts and sciences: the pattern is neither one of a dedicated and single-minded pursuit of a professional qualification in teaching (which was the mark of the normal tradition and of some patterns of teacher preparation in other countries), nor of a non-vocational pursuit of a general education in the arts and sciences for its own sake (as may be presumed to be the case in many universities in other countries). Nor is the professional and vocational task of producing a competent practitioner postponed until the general education of the undergraduate has been completed, as is the case for teachers in some other countries and for most of the major professions within the USA. This leaves the specialists in the arts and sciences themselves – the experts in the *connaissances* as it were – uneasy. It is not clear whether their task is to teach a subject 'in its own right', or in part at least as providing the content knowledge specifically needed by the future teacher, or even to teach the appropriate pedagogy of the subject itself. The uneasiness can swell into resentfulness when, in the minds of such specialists, the time of students is wasted in pursuing courses in education (for example, in its philosophical, historical or sociological aspects) that appear to have neither intellectual substance nor practical relevance. The problem is complicated by the remarkably flexible pattern of curricular choice, within which students can assemble programmes of study of bewildering variety and little coherence. Those university professors who care most passionately about their own subjects and enthusiasms do, for these reasons, often look with a jaundiced eye upon the sprawling exercise called teacher education. Moreover, many of them believe themselves to be at least competent teachers without ever having received any form of training for the task.

Many professions in the USA have achieved or consolidated a high status by associating themselves with the university, and in particular by entrenching themselves in a graduate professional school. The expanding universities of the late nineteenth century were only too happy to enhance their own position, as well as their public utility, by encouraging such developments (Bledstein, 1976). This was in many ways a distinctively if not uniquely American phenomenon. There is no simple and obvious sense in which such a path is open in the field of teacher preparation. Graduate schools are expensive to

their students, often of riper years, who choose to attend them and financial sacrifices will be made more readily where there is a hope of a return in terms of financial rewards or the advancement of a career. In the USA, as indeed elsewhere, teaching is a remarkably 'flat' career and an investment in a graduate education correspondingly unattractive. Schools of education have therefore needed to be ingenious in developing other forms of graduate education: for careers in administration, or counselling, or psychology, or research, or curriculum development (Powell, 1980). As a result, within the schools of education themselves as within their parent universities, attention has been diverted away from the tasks of *teacher* education towards more highly valued alternatives. One result has been to depress further the status and quality of teacher preparation within such universities (Judge, 1982).

The flexibility of higher education in the USA, the variety of choice and the sharpness of the competition (for resources, able faculty and bright students) oblige universities to seek and to make publicly visible their own academic qualities. The most effective way of achieving such ends is by a high reputation for research. That which is published is nearly always more effective in attracting necessary attention than that which is accomplished in the relative privacy of the classroom or teaching laboratory. Universities should in any case be dedicated to the creation of new knowledge. Schools of education can best earn such reputations by the application of generally accepted criteria to the evaluation of the research undertaken. The guardians of such criteria are generally to be found in the firmly established disciplines: psychology, economics, history, anthropology, statistics, for example. As a result, the research undertaken is often – but by no means invariably – directed towards topics remote from the professional tasks of preparing teachers. It is by no means impossible for a school of education to earn a high national reputation while devaluing its own work in teacher education and, more fundamentally, neglecting enquiries which – often by their nature untidy and speculative – might contribute to the improvement of schooling. In such circumstances, building a reputable knowledge base on which a demonstrably well grounded programme of teacher education could be built in a prestigious university becomes even more difficult.

5. Conclusion

In the last quarter of the twentieth century there emerged in many parts of the world a general tendency to recognise institutions of teacher education as part of the higher education community and to associate them more closely with universities. This tendency may be attributed in part to the powerful example of the United States as the country in which educational research has been most fully developed and in which the tasks of teacher education appear to have been most closely integrated within the comprehensive university. But it would be wrong to conclude that such a tendency takes the same form in all countries, or that it is as universal as may superficially appear. Even in

countries such as Japan, where US influence was especially potent after the end of World War II, the differences are at least as revealing as the similarities. In that distinctive society, the specific tasks of vocational teacher preparation are undertaken by the employers of teachers, rather than in the many and varied institutions grouped as universities and colleges. Within the universities an 'open' policy is pursued towards students seeking admission to courses, of a predominantly theoretical kind, related to teacher education. Many more are admitted than can later be appointed as teachers, and such a policy is plainly consistent with the non-vocational character of much university education in Japan. Such a pattern, especially when viewed within a system marked by a predominance of private institutions and a wide range of quality and reputation, with the national universities at the summit, offers few opportunities for direct comparison with the arrangements reviewed in the body of this paper (Hawley, 1990).

In many developing countries, on the other hand, institutional arrangements have often been modelled on Western prototypes, with a clear distinction between different modes of teacher training for the various categories of school. The basic problem remains, as it had been in the West, the building of a system of universal primary education and the creation of a sufficient number of teachers for that work. Standards of recruitment are in such circumstances necessarily modest, and trainee teachers recruited directly from the elementary schools often use teacher training opportunities to gain access to a form of further education; more subtle discussion of various forms of institutional provision seems hardly relevant. China, for example, faces intimidating problems in providing basic education for its vast population. Teacher training schools for elementary teachers and colleges for secondary teachers coexist. Some institutions have been, at least since 1987, designated as 'key' in teacher education as elsewhere, but it will be many years before the preoccupations of Western countries become relevant in the People's Republic (Paine, 1990). Specialised institutions for teacher education also flourish in the USSR, where the pedagogical institutes operate alongside the universities, with both offering five-year courses for secondary school teachers. Primary teachers, on the other hand, are formed in teacher training schools (Pivavarov, 1990). In these and in many other countries more detailed national studies are required before meaningful cross-national analysis may usefully be attempted. For countries such as Australia more such information is already available. The wide-ranging reforms of the early 1990s incorporate plans for the merging of what had previously been two separate sectors of higher education, having much in common with the British binary policy and also reflecting the historic European schism between primary and secondary schools and the teachers in them. This degree of integration appears to correspond to American developments earlier in the twentieth century, and yet there emerges in Australia an interesting and unusual emphasis on the specialised training of teachers from the very beginning of their entry as students into higher education. The analogy may therefore be with European patterns of professional formation (of

lawyers or doctors, for example) rather than with the US emphasis upon a general educational education followed by vocational choices and appropriate graduate education.

Within the three countries chosen here for more detailed analysis, patterns of teacher education have not been static. The three were selected not to demonstrate the existence of one underlying pattern, or to explicate certain universal laws. On the contrary: while all three have enough in common to permit some common discourse, the salient differences clarify the divergent if implicit definitions of a university (as of higher education itself), the contrasting philosophies of schooling that determine in large part the arrangements for the education of teachers, and the diverse perceptions of the role of the state and public authority. In the United States, the integration of teacher education, both with itself in terms of the elementary and secondary phases and within the structures of the university, is not a universally applicable model. It is rather a product of such special circumstances as the willed absence of an overall national framework of planning, the diversity and openness of higher education, the persistence within higher education of hierarchies of power and esteem, the dominance of metaphors of the market, and the historically comprehensive character of secondary education.

In France, by sharp contrast, the university was the state and it was national education. Above all, the university was secondary education, and such habits of thought die hard, if at all. The *écoles normales*, outside the historic university expressed as a teaching corps but within its administrative structures, were equally a manifestation of the republic. Two systems of teacher education were insulated from one another within a unified state, until the divisions were undermined by the growth of universal secondary education and the evolution of new institutions which were neither schools nor *lycées*. In England, the university was originally the whole before becoming a major part of higher education; it was private in its origins and funding, but evolved into a public institution funded by the tax payer. Teacher education enjoyed a somewhat tenuous existence within it while the training of the large body of elementary school teachers was delivered in institutions not regarded as part of higher education. From the 1960s the growth of comprehensive secondary schooling and the parallel maturing of the old training colleges into establishments of higher education blurred the previously clear lines of demarcation.

In none of the countries can the relationship between schools of education and universities be a comfortable one. Universities have their own teachers within them, and those teachers are not 'trained' in the tasks of teaching. Universities must therefore be predisposed to value the disciplines, subject matter knowledge, *les connaissances*, above vocational preparation for school teachers. Tensions are exacerbated as universities compete among themselves for reputation and resources, especially in the field of research which is in a unique sense theirs. The imperatives of research are not those of teaching or teacher preparation. Universities respect vocational preparation when it furnishes the gateway to prestigious professions (such as medicine or law) and

when such preparation is seen to be grounded in a specialised, codified, necessary body of knowledge. University teachers – almost by definition – are sceptical of the existence of such a body of knowledge for teachers. As public interest in and anxiety about the effectiveness of education are augmented, so the state exerts more direct pressures upon universities as a whole, and especially on their role in the preparation of teachers for the schools. Schools of education are therefore in a peculiarly vulnerable position. In all three countries, but in different ways, these pressures have manifested themselves.

In England, and indeed in the United Kingdom as a whole, the 1980s were marked by an impetus towards higher standards, and by the government's pursuit of a greater degree of differentiation and competition among the institutions of higher education. One of the conventional criteria of excellence in the international world of universities relates of course to the volume and quality of research undertaken and results published. The official body at that time responsible for directing the flow of public money to the universities (the Universities Grants Committee, established in 1919 and abolished in 1988) undertook a series of reviews and assessed university departments, including of course those in education, in terms of their research productivity. Such an emphasis, while not entirely novel, had unprecedented effects in encouraging those departments to produce a higher priority in such work. The long-term effects of such changes have yet to be assessed, but it may be anticipated that some of the distortions manifest in US schools of education will appear on the other side of the Atlantic. At the same time, other pressures (also related to efforts to tighten standards) were pulling the university schools of education in very different directions. It had long been asserted that teacher education had been corrupted by softness, by an unhealthy degree of isolation from real pupils in real classrooms, by a disproportionate attention to 'theory' and by a corresponding lack of concern with such immediate issues as the effective management of children in groups (Judge, 1990). Through a series of actions, the government of the day sought to repair such weaknesses by insisting on a more rigorous accreditation of all courses of teacher education by reference to a published set of criteria. These criteria, and the machinery to enforce them, were important both in defining what might count as an acceptable standard in teacher education and in claiming for the government a new authority in imposing such definitions upon universities traditionally jealous of their autonomy (Edwards, 1990).

In France, as in England, the initiative was seized by the central government and sweeping reform introduced from the beginning of the 1990s. The traditional system was already in disarray and responsibility for the various aspects of different forms of teacher training dispersed among a number of institutions and agencies (Peretti, 1982). The solution proposed was bold: all the existing partners in teacher training should lose their identities and be merged in new regional consortia, each with the title of *Institut Universitaire de Formation des Maîtres* (Bourdoncle & Zay, 1989). At the head of each such institute is a tenured member of the university faculty with the

responsibility of co-ordinating the functions at present discharged by the *écoles normales* (abolished in 1991) the *centres régionaux pédagogiques*, the inspectors and the various subject departments of the universities (including those in educational sciences). Much of the detail was left unclear, and three pilot areas were identified in 1990 to explore possible solutions. As novel as the radical nature of this reform of a deeply entrenched set of traditions was the willingness of Paris to delegate to the provinces a great deal of responsibility for planning and to allow considerable local variation. At the same time, *l'éducation nationale* is to preserve its identity as a unified state service and teachers remain a national force under common sets of regulations. Recruitment to all forms of teacher training is to be after the *licence*, that is after three years of university education. Even the evocative status of *instituteur* is to be replaced, by the end of the century, with that of *professeur d'école*. Even so, the *agrégé* remains apparently undisturbed, and exempt from many of the new training requirements while the *écoles normales supérieures* preserve their dignity, still outside the university system. There are limits even to Gallic logic.

Within the schools of education in the United States there developed during the 1980s a powerful current of criticism and of reform. This was in part, but only in part, propelled by the national and indeed international mood of discontent with the achievements of public education. One response to such disenchantment took the form of a closer and essentially hostile scrutiny of the schools of education: their relative autonomy should be restrained, their graduates should be tested by public authorities before being allowed to teach, teachers already in service should be more closely regulated and controlled. Powerful voices urged the introduction of national standards for teaching, and of a National Board for Teaching Standards, neither of them closely related to the mission of the schools of education (Carnegie, 1986). Within the university itself, other groups elaborated a different pattern of change. The problems and dilemmas were acknowledged. The relationship between a school of education, especially in a distinguished research university, could not be a comfortable one. The university monopoly had produced a crop of hard problems. The historic power of teacher education in the university could itself be a source of weakness. The education of teachers had been neglected, and both teaching and research had become dangerously remote from the mission of a professional school. But none of this was perceived as an argument for diminishing the university interest in the education of teachers (Soltis, 1987).

On the contrary: it was asserted that the research of the universities should be redirected towards the improvement of teaching and teacher training, that teaching in the basic subjects of the arts and sciences should be reformed, and that the work of the university should be connected with that of the schools by the introduction of so-called professional development schools (Holmes, 1990). This last innovation owes much to the persuasive precedent of the teaching hospital in medical education and points towards the reclassification of teacher training in the university as a graduate activity. The agenda as a whole raises the most fundamental and ubiquitous problems inherent in

the relationship between universities, schools of education and the education and training of teachers.

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Education Training and Economic Performance in Comparative Perspective

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In the last decade education and training reform has become a major issue in most of the advanced industrial countries. Economic change has been a driving force behind this reform movement. Faced with increased integration of world markets, rapid introduction of new technologies and the emergence of efficient, low wage competitors from the Far East, the industrialised countries have been forced to move into high-skill, high value-added market segments if they are to remain competitive. This economic imperative has intensified as countries such as South Korea and Singapore have used a large and successful investment in education and training to advance into increasingly sophisticated product and service markets. While there is an undeniable logic to this argument, it has proved difficult to demonstrate theoretically, or empirically, the relationship between education and training (ET) and economic organisation and performance.

This paper will explore the relationship between ET and economic organisation and performance in comparative perspective, asking the question: 'Have some advanced industrial countries been more successful than others in creating highly skilled individuals and companies, and if so, why?' The particular empirical focus will be on the relative failure of Britain to provide sufficient education and training for its workforce. The paper is structured as follows: the first part reviews the traditional approaches to the relationship between ET and economic performance; the second part outlines my own model, which attempts to synthesise two major theoretical approaches to ET and examines the nature of the ET investment decision; and the third part applies this model to the case of Britain to explain why its market-based system fails to provide the same levels of ET and economic performance as its main economic competitors.

The first theoretical perspective on the relationship between ET and economic organisation and performance we need to examine is that of neo-classical economics. This typically involves building abstract models, such as human capital theory, which treat ET as an investment in the same way as

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investments in physical capital (Becker, 1975). The advantage of this approach is that it forces us to look at the clear causal relationship between investments and the benefits they yield, and to simplify variables to the extent that we can test the relationship between them and aggregate levels of ET. This approach has provided some useful insights into the ET investment decision, such as the distinction that is made between general, transferable skills, which human capital theory predicts will be financed by individuals or the state, and job-specific skills, which the company is likely to pay for. Economic models have also focused on critical factors such as skill differentials and the incentives they provide for individuals to build and develop their own skills.

There are several problems with this type of approach for analysing ET and the economy. The first is that the abstract models become so far removed from reality that it is difficult to apply them to particular cases. This is true, for example, in the difficulty of differentiating between general and job-specific skills in the training that occurs within firms. Secondly, there is a problem of just what is that is being measured. The actual concept we are trying to understand, namely improvements in overall skill levels or individuals' capacities, can usually only be measured by proxies such as participation rates in full-time education or performance in examinations. These proxies raise definite problems of comparability between countries; what value, for example, should be attached to a US high school diploma, given that those who attain it have reached no recognised outside standards and, in some cases, may have problems with literacy or numeracy? Similarly, there are difficulties in comparing on-the-job training in Great Britain and Japan, where Great Britain may score higher in terms of incidences of formal training, while the level of skills may be much greater in the Japanese case, where skills are created through informal means, such as job rotation, which do not classify as incidences of training.

The problem with economists' traditional approach is well illustrated by one of the most common variables they use to demonstrate the link between ET and economic performance: namely skills shortages. If skills shortages persist even during times of high unemployment, then the lack of ET is seen to act as a direct brake on economic growth. There are a number of problems, however, with how we interpret skills shortages. The first is that they tend to be very cyclical and therefore may convey different impressions, depending on where in the business cycle the country is at the time of comparison. Secondly, the fact that firms report large skills shortages may not in fact indicate that there is a shortage of those skills in the workforce. The problem may be that the wage the employer is willing to pay for a particular job fails to attract sufficient people; or factors such as the work conditions, discrimination in hiring practices or lack of labour mobility may prevent people with the available skills from applying for jobs. In the education sector, for example, recruiting difficulties exist alongside a pool of 400,000 qualified teachers who are no longer working in the profession.

The main problem with skills shortages, however, is that they tend to

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underestimate the effects that low levels of ET can have on economic performance. Employers are aware of the available supply of skills when they are evaluating uses of new technology and how to organise work, and therefore anticipate this variable when making these strategic decisions. Thus, every vacancy may be filled, but a country could still suffer dramatically from the lack of available well-educated and trained workers because work is organised in such a way that there is a low demand for skills in the workplace and, hence, low productivity.

A final problem with the human capital approach for our purposes is that it tends not to be comparative – it cannot explain why some countries are more successful than others in supplying high levels of education and training.

The obverse of the economist's approach is that of institutional analysis most traditionally associated with the case study methodology. This involves detailed description and historical analysis of the provision of education and training and the organisation of the economy. The problem with this approach when taken to its extreme is that it treats each case as unique with particular cultural, historical and sociological characteristics, which therefore makes it very difficult to learn from international comparisons. There are, however, some good recent examples of the institutional method that go beyond the descriptive case study. The first body of research to look at briefly is that of Sig Prais and his colleagues (Prais *et al.*, 1990). In a series of industrial sectors they have matched small groups of British firms with their counterparts in countries such as Germany and France. They began by looking at traditional manufacturing sectors, such as engineering, metal working, and less obvious sectors, such as textiles or kitchen furniture manufacture. They have now moved on to comparisons of service sectors, such as retailing and hotels. The focus of these studies has been on how work organisation and productivity are related to ET and skill levels. A recent study of small to medium-sized hotels found startling differences in labour productivity between Germany and Britain: German hotels were 65 % more productive when controlling for other factors. They traced the German advantage to differences in both the quantity of training – 35 % of the German workforce was qualified as opposed to 14 % in the UK – and the quality of training – German workers had gone through rigorous apprenticeships that provided both greater breadth and depth of skills than British training programmes. The greater level of training in Germany enabled particular occupations, such as that of chambermaid and receptionist, to be organised in such a way that fewer workers were needed to provide a higher level of service.

The L'Est School of Societal Analysis has taken a broader approach to ET and the economy. Maurice *et al.* (1986) set out initially to explain the disparities in wage and manning levels between blue and white collar workers in France and Germany. Conventional economic models could not explain the consistent pattern they found across industries. They then shifted to an interdisciplinary approach, studying the social context in which wages were determined. This led them to analyse the different ways in which skills were

defined and rewarded in the two countries by tracing career paths and the hierarchy of qualifications. They concluded that differences in wage and career patterns could only be explained with reference to three critical organisational factors: first, the way in which business was organised; secondly, the structure of industrial relations; thirdly, the structure of the education, training and qualification system. It is conceded, however, by the developers of this approach that societal analysis still has several limitations. It is relatively static, taking a snapshot picture of a country at one point in time and failing to add a dynamic element of critical importance in times of rapid economic and technological change. The second serious problem with this method is that it fails to allow for the significant variations within countries at either a regional or a sectoral level.

What is needed is a new method for comparing education and training systems that combines recent insights from economic thinking – notably the development of game theory – and an institutional analysis of the incentives that particular actors face. What I propose to do is to construct a simple analytical framework consisting of three players, who represent the main investors in education and training, namely the individual and his or her family, the company manager, and the government policy-maker. Incorporating the advantage of game theory over neo-classical economics, the framework treats the decisions of the three actors as interdependent, with the decision of any one actor on whether to invest in education and training affecting the decisions of the other two. The game can be used to analyse the factors that make these three actors more or less likely to invest in higher-level skills, looking at the specific institutional characteristics of different countries or regions and how they might increase or decrease the likelihood of achieving a high-skill equilibrium. The goal is to move beyond the specifics of national cases to look at the functions served by institutions.

There are several advantages to this approach. The first is that unlike cultural historical explanations of why Britain provides less ET than its main competitors, the model forces us to look beyond nebulous traits such as British attitudes or an 'anti-industrial culture' to the institutions that perpetuate those attitudes. Many of these so-called irrational cultural attributes may in fact be rational responses to the incentives that particular actors face and, therefore, altering those incentives may enable policy-makers to alter the behaviour of particular actors. The second advantage of this approach is that it allows us to combine different levels of analysis of ET decisions. This paper is primarily concerned with national systems – the macro-level – and why it is that certain countries have more or less training than others; but the same approach, with the same actors and similar institutional factors, can be used at the meso-level, to analyse industrial districts and the particular structures that allow them to maintain high levels of skills; or at the micro-level – the firm or locality – to analyse what it is that leads the actors in a particular company to invest or not invest in ET. By using these different levels of analysis it may be possible to explain variations in skill levels within countries or sectors. Firms that may

successfully pursue a high-skill strategy in an overall low-skill environment, for instance, may be subject to a different set of institutional incentives (e.g. a different form of ownership) than surrounding companies.

The game framework was developed by combining numerous different disciplines that bear on the analysis of education and training, drawing on politics, economics, management and business literature, as well as sociology and industrial organisation. By constructing it as a game, the emphasis is on probability rather than determinism. Institutional incentives set the odds that players will follow particular routes; each actor, however, retains a degree of autonomy. Players will, for example, have different willingness to take risks, with some electing to pursue a route despite disincentives they may face.

I shall now apply this method to the British case, arguing that the economy has been caught in a low-skill equilibrium, where a majority of firms staffed by poorly trained managers and workers produce relatively low quality goods and services. The use of the term 'equilibrium' is meant to emphasise the self-reinforcing nature of societal and state institutions which interact to stifle the demand for improvement in skills. Altering one component in this equilibrium without changing the others is unlikely to shift the country from its low-skill position. What I have argued elsewhere (Finegold & Soskice, 1988) is that this institutional equilibrium has deep historical roots, with its origins in Britain's experience as the world's first industrial nation, and that its effects have continued into the current stage of economic competition, making British companies and individuals less likely to invest in higher-level skills than their main competitors.

The evidence of this low supply and demand for skills is voluminous, and I can only review it briefly here. On the education supply side, the problem begins even before compulsory schooling where Britain provides much less nursery or pre-school education than its main European competitors. Only 44% of British children in the 1980s were in some form of pre-school education as compared to 85–90% in countries such as France, Italy and Belgium. The next stage in the ET shortfall concerns the levels of achievement within schooling. Britain consistently finishes at the bottom of international comparisons in tests of achievement in such basic subjects as mathematics, science and reading. Although there are numerous problems with these standardised tests, what they reveal in general about the British structure is that while the élite, the 15–20% going on to higher education, do quite well in their chosen subjects, often finishing at the top of international rankings, the majority fares poorly.

Britain also suffers from low staying-on rates in further and higher education. There are both static and dynamic components to this problem. The static component is that for quite some time Britain has convinced fewer people to stay on in school or college than its competitors, in 1988, roughly half of British 16-year-olds and a third of 17-year-olds stayed on compared with more than 85% 16- to 18-year-olds in Japan, Sweden and the US. The dynamic element, however, is that Britain has been unable to close this gap

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with its main competitors; indeed, Britain was one of the only countries in the OECD (Organisation for Economic Cooperation and Development) that failed to increase participation rates during the 1970s. As a result, if we compare Britain and France we find that whereas they had relatively the same participation rates in the 1960s, now France is well on the way to meeting the Mitterand government's target of having 80% attain the Baccalaureate, a broader standard than A-level, by the year 2000; in contrast, Britain continues to have less than half that number staying on until 18 and much less than that reaching the A-level standard.

Similarly, if we examine higher education we find just how far behind Britain is falling. In England, roughly 20% of the cohort are now continuing directly into higher education, whereas in South Korea, which a generation ago was defined as a developing nation, the level stands at 36%. To put this number in perspective, even if the British government were to reach its target of increasing the numbers in higher education by 50% in the next decade, which seems unlikely given the government's unwillingness to make the money available to build new universities or polytechnics, and South Korea were not to increase at all, Britain would still be behind. But South Korea is unlikely to remain static, as a recent survey revealed that 85% of South Korean parents expect their children to enter higher education in the next generation.

As a result of these low attainment and participation rates Britain has relatively low levels of qualification in its existing workforce. This low level of qualification is evident not only in terms of success in general examinations, with only a minority of workers having attained even one O-level pass, but also in a particular lack of technical and vocational qualifications. The skills gap is present in such traditional sectors as engineering, particularly at the craftsman level, as well as service sectors, such as retailing, where Britain has a seven to nine times lower supply of qualified workers than France or West Germany (Prais *et al.*, 1990).

The problem continues with the training that individuals are offered within employment. A 1990 OECD survey of further training amongst the industrialised countries found that the British state spent less on training those in employment than any of its main competitors. This deficit is not compensated for by firms; an earlier study *Competence and Competition* (Hayes *et al.*, 1984) estimated that British employers spent less than 1% of turnover on training, as opposed to an average of 2–3% in West Germany, Japan and the USA. A more recent study *Training in Britain*, however, made the controversial claim that British employers were spending £18 billion on training each year (Training Agency, 1989). When we look at these figures more closely, however, they reveal the nature of training in Britain; while many workers received intensive training, two-thirds of individuals received no formal training in the last three years and, perhaps most disturbing of all, 42% of those surveyed could never envisage participating in further education or training in their working lives.

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In an earlier paper I explored the other side of the skills equation – the low levels of demand for skills among British employers (Finegold & Soskice, 1988). Since that time, further studies have confirmed this finding, notably Porter's *The Competitive Advantage of Nations* (1990). He examined 10 industrialised countries and their economic performance between 1970 and 1985, and found that the UK had lost the greatest share in high value-added products and service markets, thus reinforcing earlier evidence that British firms are trapped in a low-skill equilibrium, concentrating on low quality, low-skill markets.

How can we understand the reasons for this failure? By using the game framework outlined earlier, it is possible to identify two factors inherent in the ET investment decision and the institutional structures that discourage the key actors in Britain from developing higher-level skills. The first factor is the need for the players to have a long-term outlook if they are to invest in advanced levels of ET. The reason for this is quite simple. It relates to the pay-back period for ET investment, particular investment in higher level skills. While the costs of ET must be borne up front, the returns accumulate only gradually as the individual acquires the skills.

Whether the various actors are able to take a long-term perspective when analysing the decision to invest in ET is not, as it might first appear, a matter of attitudes, but rather a result of the particular institutional incentives they face. If we look first at top-level *company managers* we find that the key institutional factors that will determine their willingness to invest in education and training will first be the nature of the relationship between financial and industrial capital. To whom are they responsible and what type of performance targets are they trying to meet? In Britain there are numerous studies pointing to the pressures for short-term decision-making by managers as a result of their dependence on the stock market for finance. This was highlighted most recently by the Innovation Advisory Board of the Department of Trade and Industry which called for changes in the tax code and takeover regulations so that British firms would be more willing to invest in those areas necessary for encouraging innovation, such as R&D, new technologies and, of course, training.

While the stock market is a critical factor in determining the willingness of top executives to make high-skill investments, most training decisions are made further down the corporate hierarchy. Therefore, it is necessary to look at the way in which companies are structured and, within these structures, whether individual managers are rewarded for investing in education and training. For example, are their assessment and future career prospects dependent on building the skills of their subordinates? Do firm accounting techniques measure all the benefits of training or just the costs? Studies such as Coopers & Lybrand's *A Challenge to Complacency* (1985) have shown that, in general, British firms' structures and reward systems discourage ET investment. The research of Campbell *et al.* (1989) on the microelectronics

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industry, in fact, found that British managers had to hide their investment in training from upper level management for fear that it would be cut in a recession if it was included in their formal budgets.

The timeframe with which *individuals* evaluate skills investments will be determined both by the incentives within the education and training system and those in the labour market context surrounding the ET system. In Britain, the majority of individuals adopt a short-term perspective towards their own skill development because the education system is driven by a historically élitist examination structure which focuses on the small number of individuals who go on to HE, while branding the vast majority of students as failures (IPPR, 1990). Although the introduction of the National Curriculum and the replacement of O-levels and CSEs with the General Certificate of Secondary Education (GCSE) should improve the incentives within the ET system for average students to work hard until 16 – by introducing continuous assessment and clear stages of progression in a unified system – these reform efforts have, thus far, not been extended successfully into the post-compulsory phase; A-levels, the high status option that promises entry to HE or a good job, are designed so that only roughly 20% of each age cohort will pass. For the rest, the labour market may actually create an incentive to leave school or college, since employers attach little reward to education-based vocational qualifications and recruitment to the best apprenticeships is often restricted to 16-year-olds (Raffe, 1987). This stands in sharp contrast with Germany and Japan, where students of all abilities have clear incentives to work hard during compulsory schooling because their performance is clearly related to their future career prospects and there is no active youth labour market offering relatively high wages, thereby minimising the opportunity costs of remaining in ET.

The second calculation individuals make is whether to continue to pursue ET after finding employment, a decision that will be driven by whether the skills they acquire are likely to be rewarded in the labour market. There are two types of structures that may create these rewards. One is the internal labour market, where British companies have traditionally not been able to reward individuals for building general, transferable skills because of the lack of employment security – like the Japanese 'lifetime employment' model – necessary to justify this investment over the longer term. Thus Britain has had to rely primarily on external labour markets to encourage individuals to invest in their own higher level skills. This works well in certain professions such as medicine, law and accounting where individuals are willing to invest their own time and money in getting certified because they know that, regardless of which firm they end up in, they are likely to be rewarded with interesting and well paid jobs. However, an analogous, high status structure of technical and vocational qualifications does not exist in most UK industrial or service sectors. The National Council for Vocational Qualifications is attempting to redress this failure, but there are significant doubts as to whether it will succeed in its task.

The final player in the game, the *government policy-maker*, has also been discouraged from taking a long-term perspective on education and training in Britain because of the nature of the institutional incentives faced. The problem centres on the mismatch between the electoral time-cycle and the time-cycle required for investment in higher level skills. It is important to remember that ET policy can serve a number of aims apart from building skills, such as reducing the number of unemployed. In the last decade Britain has undergone an almost endless cycle of reforms and borrowing from other countries' policies, a process Keep (1991) has called the 'pick 'n' mix' approach to policy formulation, rather than a concentration on long-term planning and development necessary for creating high-skill training and education policies. This short-term approach has been reinforced by the lack of institutional support necessary for formulating a high-skill policy, such as comprehensive data on skill needs and existing levels of qualification. An attempt was made to establish this institutional capacity through the creation of the Manpower Services Commission in 1974, but this corporatist project was abandoned by the Conservative government. Even before the MSC was abolished, its ability to take a long-term, strategic view toward ET investment was significantly reduced as it became politicised, forced to respond to the whims of ministers in designing new education and training initiatives.

The second factor that is necessary for high-skill investment decisions to be attractive is that of co-operation within a competitive environment. Co-operation is essential because of the public good nature of the investment in higher-level skills; this includes not only the investment in education and training, but also the expenditure on other key areas – R&D, diffusion of the latest technologies, export marketing – that are essential for success in the current competitive climate. Each of these investments may be beyond the means of a single company or individual, but could be to their mutual benefit if institutional means are devised for overcoming the free-rider or collective action problems.

Let us begin by looking at co-operative relationships between managers. These relationships are crucial because of the persistent structural problem that has plagued British firms, discouraging them from training: the poaching of skilled labour. Britain's inability to prevent poaching can be traced directly to the weakness of British employer organisations. Unlike German or French Chambers of Commerce, British employer organisations have not had a sanction with which to deter firms from free-riding on the training system. The 1964 Industrial Training Act was an attempt to discourage free-riders, by imposing a levy on those companies that failed to train, but this mechanism was dismantled along with the training boards in the early 1980s.

It is also necessary to look at the institutions that shape relationships between the various types of actors, such as the relationship between *managers and individuals*, or their representatives, the trade unions. They interact through the industrial relations system. The history of British industrial relations – with its roots in the craft guilds and legacy of multiple unions in a

single plant – has militated against co-operative labour–management relations by creating a situation where it may not be in any one union's interest to work together with management even though all workers might benefit if co-operative agreements were reached. This institutional barrier to co-operation in Britain, however, has been significantly reduced in the last decade as trade union power has declined, owing both to legislation and, more importantly, falling membership and the decline of those sectors, such as mining and traditional manufacturing, with the strongest unions.

The institutions that govern the relationship between *managers and government* again discourage co-operation in Britain. At the macro-level, the organisations representing capital and labour – the CBI and TUC – lack the power necessary to guarantee the co-operation of their membership, an essential ingredient of lasting corporatist bargains. The result has been that no one actor has taken clear responsibility for the development of higher level skills. The British state has failed to fill this gap, instead relying on voluntarism, or leaving it to the market to ensure a sufficient supply of training for individuals beyond compulsory schooling. Raffe (1991) has pointed to the problems involved in this 'mixed model', where no clear lines of responsibility are drawn between the state and firms; government argues that it is companies' responsibility to train, while companies argue that the government or the individual must make the training investment, with the result that no player picks up the bill for developing higher level skills.

Finally, let us look at institutional mechanisms of co-operation between *government and individuals*. This relationship is critical for ensuring that individuals have the information necessary to make informed choices regarding their own education and training. Britain has suffered from the under-funding of the careers service, and the lack of comprehensive labour market information or skills counselling for those in employment.

If not set in a competitive environment, however, co-operative institutions are unlikely to produce a high-skill economy. The reason for emphasising this factor is that co-operation, when combined with a long-term perspective, could be a recipe for stagnation or oligopolistic bureaucracies which would stifle rather than encourage innovation. The essence of competition is that it compels the players to maintain a level of ET investment that enables them to meet or surpass their most successful rivals in the world economy. Here again, if we look at the institutional position of Britain, we find that there have been numerous ways in which competition has historically been discouraged and therefore actors have been able to avoid making the higher skill investment decision. Part of this can be traced to the heritage of empire and the fact that of all the industrialised countries Britain continues to have the highest percentage of trade with the developing world, thereby reducing the pressure to move up market. British companies have also been shielded from competition by concentrating in the non-tradeable service sector, though this is changing as more and more services become open to foreign companies. The greater integration of the world economy, including the creation of a single

European market by the end of 1992, will make it more difficult for British firms to sustain their low-skill strategies.

The foregoing analysis gives some idea of the structural reasons why Britain has invested less in education and training than its main competitors. It is important to keep in mind, however, that even if these institutional incentives could be altered, thereby encouraging actors to invest more in ET, this by itself would not necessarily lead to an improvement in skill levels. The additional factor that must be taken into account is the capacity of the existing system to create higher level skills. If we look first within the education system we find that Britain is already suffering from teacher shortages in key subjects such as mathematics, science and foreign languages, and that these shortages are likely to increase as attempts are made to introduce the National Curriculum. The scale of the problem is partly hidden by the fact that many teachers are responsible for subjects for which they were not originally qualified. The absence of a capacity to deliver high quality training within employment is an even more severe impediment to a high-skill equilibrium. The low levels of management ET and the accountancy bias of much of the training that takes place discourage managers from making higher level skill investment and, in fact, may cause them to view the up-skilling of employees as a threat rather than an opportunity. Furthermore, as Rose & Wignanek (1990) have pointed out in their comparison of Britain and Germany, spending money on training without first creating a pool of well-trained trainers, equivalent to the German *Meister*, is unlikely to be an efficient means of creating higher level skills.

I shall conclude by looking at the interdependence of the actors in the model, showing how an improvement in the levels of education and training of the majority might provide a way of starting to break out of the low-skill equilibrium. If the basic attainment of those coming out of the compulsory education system is raised, all three players have greater incentives to invest in additional skills. For the individual there is clear evidence from empirical studies that those with higher levels of general education and training attainment are more likely to receive further education and training. From the perspective of the company manager, higher levels of general education not only decrease the need for remedial training that their firms might have to provide, but also decrease the risk of poaching; if the education system provides a higher base of transferable skills, then companies can concentrate more of their training activity on building company or job-specific skills. As Streeck (1989) has argued, elevating the general level of education and training may in fact reverse the traditional poaching argument. German companies have been compelled to move into ever higher skill market niches and alter the organisation of work, introducing new technologies in ways that will create demanding jobs, for fear of losing their best employees to competitors. Finally, from the perspective of the government policy-maker, an improvement in the level of attainment of the majority is likely to lead to greater demand for state investment in further education and higher education. Clear

evidence of this demand–push factor has come with the introduction of GCSE and the unanticipated surge in higher education enrolments that has followed.

While the elevation of individuals' ET levels may serve to alter the incentives of the other actors, changes on the supply side of the skills equation without corresponding changes on the demand side are unlikely to result in long-term shifts from the equilibrium position. The danger, I fear, is that the ET and economic reforms of the last decade, with their emphasis on market mechanisms that encourage short- over long-term decision-making and competition at the expense of co-operation, will push Britain more deeply into a low-skill equilibrium.

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French Lessons: comparative perspectives on what it means to be a teacher

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Background to the Study

Despite the enormous volume of research on teachers and teaching that now exists, relatively little attention has been given to the potential of cross-national comparisons in this respect. Although it is readily apparent, given a moment's thought, that teaching in a highly industrialised, affluent country, for example, is a very different matter from performing the same role in a poor, underdeveloped country, much of the existing research is characterised by a substantial degree of ethnocentrism. To the extent that it exists, such ethnocentrism is likely to result in a failure to take into account both the institutional and cultural traditions of any particular country, and its prevailing socio-economic conditions. Thus, in the research project on which this paper is based, we sought to respect the independent contribution of the national context as it influences the way in which teachers build up a view of their role. Indeed, we went beyond merely *recognising* this source of influence in favour of actively *utilising* the comparative context to distinguish constant, from more variable, elements in teachers' perspectives. This paper therefore offers one example of the potential of cross-national comparison as a methodology within educational research. In sharing some of the substantive findings of the project we hope to illuminate more generally the strengths and weaknesses of such an approach.

The 'Bristaix' project on which this paper is based was designed to build on earlier research entitled 'Constants and contexts in educational accountability: a comparative study'. The purpose of this earlier project, which ran from 1979 to 1981, was to compare provision for accountability and control in educational systems that had very different modes of organisation. England and France were chosen for empirical study because of their proximity and marked differences in national, institutional and ideological traditions in the provision of education. Interviews were conducted with individuals at all levels of the education system and these, together with documentary analysis,

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provided for a number of conclusions to be drawn, which are reported in detail in the final report of that project.

In broad terms this earlier research revealed that centralisation is not necessarily equatable with effective control, and that teachers in France, where control emanates from the centre, are in some ways freer than their English counterparts since central control is hard to 'police' without a complementary local provision for accountability. Although this local control exists in France – not least in the form of inspections and budgetary restrictions – teachers themselves seem much less accountable to local consumers. This difference is particularly marked in relation to justifying practice to parents since it is recognised that teachers have little freedom to influence the content of education.

In England, by contrast, the much-prized freedom of teachers to decide what and how to teach at the level of the individual school and classroom exposes them to much greater pressure for consumer accountability as well as a weaker, but by no means negligible, local education authority control. The fact that there is a great deal more homogeneity of practice in France than in England was thus found to be not primarily a result of directives or coercion but of the ideology of teachers themselves. French teachers typically believed in the need for centralisation of educational provision as the basis for equality of opportunity and national unity. The same long-standing traditions that inform this view have also tended to inhibit teachers' wish to become involved in curriculum development or to take responsibility for the development of a distinctive institutional ethos.

Policy changes in the last two decades in both countries may be seen in each case as a product of a desire on the part of governments to introduce the perceived strengths of the other's approach. The French government has sought to introduce progressive decentralisation measures in order to provide more effective local control and curriculum development. The British government has, by contrast, sought to introduce measures to strengthen both accountability to consumers and central direction.

It is against the background of these general findings that our comparative study of teachers was conceived. We wanted to know in what ways the significant and complex national differences in the organisation of educational provision that had been identified affected the way teachers in the two countries conceived, and approached, their professional role. In particular we wanted to pursue the notion of 'constants' and 'contexts' in educational provision to see how far, and in what ways, the task of teaching is defined by the nature of classroom life itself and the exigencies of the pupil–teacher relationship as opposed to pressures and directives from outside the school. It was felt that such insights into the relative permeability of teachers' work would be of major importance to policy-makers, curriculum developers and all those – including schools themselves – who have responsibility for directing and improving educational provision. Put simply, we wanted to study the

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relative importance of various influences on teachers' practice in order to help provide a sounder basis for improving it.

Methodology

It will be clear from the foregoing that a comparative approach provides an ideal 'laboratory' for such a study since it allows ethnocentric assumptions to be identified and challenged by the existence of alternative, and equally deep-rooted practices. As will be apparent from the account of the outcomes of the project which follows, such international comparison has provided a unique set of insights and has yielded contrasts that are the basis for novel theoretical perspectives.

The fact that comparative studies of this kind are relatively rare, however, despite their undoubted strengths, testifies to the methodological difficulties involved. Funding bodies are rightly wary of supporting research that may only result in a national case study or in studies of particular aspects of educational provision where the salience for the sponsor country is either left implicit or deduced without due regard to the critical influence of the mediating national contexts. Much comparative educational research still lacks both theoretical and methodological rigour either because educational systems are chosen for comparison on the basis of convenience rather than logic or because it makes no attempt to build on the comparisons made to formulate more general insights into the relationship between education and society.

Warwick & Osherson (1973) have identified certain basic problems that occur in comparative analysis whether the method of research is the sample survey, participant observation, historical analysis or some other approach. These are:

(1) conceptual equivalence;
(2) equivalence of measurement;
(3) linguistic equivalence;
(4) sampling.

Although these problems may arise with any research method, they are brought into sharpest form by the questionnaire/survey method as used in the Bristaix study.

Conceptual Equivalence

One of the most basic theoretical questions in comparative analysis is whether the concepts under study have any equivalent meaning in the cultures under study. Concepts may be more or less culturally specific—even, as emerged from this study, such an apparently unambiguous one as 'teaching style'.

Particular terms may not have exact counterparts in all cultures. A major challenge for comparative research then is to "provide conceptual definitions that have equivalent, though not necessarily identical meaning in various cultures". These problems are lessened to some extent, but not eliminated,

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when comparing two Western industrialised societies. There may be more shared concepts, but there are still problems of conceptual equivalence. For example, in the Bristaix study 'accountability' has no equivalent meaning in French and therefore the expression 'professional responsibility' was chosen, since it appeared to have validity in both countries.

Equivalence of Measurement

In addition to choosing variables that can be given comparable conceptual definitions in the societies under study, there is the further challenge of developing equivalent indicators for the concepts. Concepts may differ in their *salience* for the culture as a whole, or respondents in some countries may be unwilling to discuss sensitive topics such as politics, sexual behaviour, income or religion. For example, Lerner (1956) notes that it is impossible to make discreet enquiries about religion among Frenchmen. Finally, 'the responsibility of a concept' may vary because respondents are unable or unused to discussing it. An example is given by Lesser (1969) in a study of adolescents in Denmark where teachers were asked to consider analytically the characteristics of their adolescent students. "Despite their willingness to cooperate, the Danish teachers claimed that they were unaccustomed to considering analytically matters of adolescent interactions and could express no judgements or opinions". Eventually, this component of the investigation was abandoned.

A similar problem occurred in the Bristaix study where French teachers were not able to describe their 'teaching style'. A possible explanation for this may well be that this is not seen as a problematic issue in France, in that French teachers are not accustomed to reflect upon their 'teaching style' in an analytical way.

Dujykes & Rokkan (1954) have suggested that one effective approach to equivalence lies in a study design involving collaboration between knowledgeable members of the participating societies. They indicate a number of ways in which this may be achieved, but conclude that by far the most direct approach to equivalence is the 'joint-development-concurrent' model where the research design is arrived at jointly by collaborators from the different cultures involved, and the study is carried out more or less simultaneously in these cultures. This is the approach adopted in the Bristaix study, which allowed at least some of these important methodological difficulties to be overcome.

Linguistic Equivalence

There still remains the difficulty of obtaining linguistic equivalence through translation. 'Back-translation' was seen for a time as the answer to these difficulties in which the questionnaire is translated from language A to language B by a native speaker of B, then from B to A by a native speaker of A, then from A to B by a third party, and so on until discrepancies in meaning are

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clarified or removed. This approach has recently come under heavy fire, however:

> The back translation procedure does indeed guarantee that the words translate accurately or reveal that they do not. But back translation can also instil a false sense of security in the investigation by demonstrating a spurious lexical equivalence. Since language is a cultural artifact, it must be assumed that the question is being addressed to people who are immersed in two different cultural milieux. To the extent that this is so, it is not sufficient to know simply that the words are equivalent. It is necessary to know the extent to which those literally equivalent words and phrases convey equivalent meanings in the two languages or cultures... (Deutscher, 1973)

Warwick & Osherson (1973) offer the following suggestions as a guide to setting the problem of linguistic equivalence within the broader framework of conceptualisation and research design. These include ensuring that the research problem is salient to all the cultures involved; that the primary emphasis in translation is on the conceptual equivalence – comparability of ideas – rather than of words *per se*; and that there is extensive pre-testing of the research instruments in the local culture.

The Bristaix study attempted to confront these problems by employing a method emphasising joint production of research instruments by the researchers from both countries in the process of which concepts and their meanings could be extensively discussed.

Sampling Problems

The comparability of cross-societal studies may be greatly reduced by, for example, the use of non-comparable or low-quality sampling frames; differing procedures for selecting the sample; the oversampling of some groups and undersampling of others; the high, or varying, non-response rates. The Bristaix project attempted to overcome these dangers by using a method of quota sampling that attempted to ensure comparability of the sample. Non-response was minimised as much as possible by personal collection of questionnaires from every school in the sample in France and by telephone call and personal collection from all schools that did not respond to the first follow-up letter in Britain.

Finally, Warwick & Osherson make the point that many of the problems previously discussed stem from an exclusive reliance on single methodologies. They make a plea for more "innovative combinations of methods in comparative research". Many of the limitations of survey methods in comparative study, for example, would be much less serious, "if the study also contained extensive qualitative information on the societies covered". The combination of survey and ethnographic methods in comparative research is a

fruitful one and provides the analyst with additional sources of information for interpreting the findings, as well as immediate evidence on the validity of the data. The Bristaix study is one of only relatively few comparative studies that have attempted to combine methods in this way.

Another strong case for including an ethnographic stage in survey design is made by Crossley & Vulliamy (1984), who have suggested that case study or ethnographic methods can play a vital role in comparative education in examining the hiatus that may exist between the policies and the practice of schooling. Case studies of schooling can expose the gap between rhetoric and reality and lead to theories about the processes of schooling. They can also, in combination with questionnaire surveys, act as a method of 'triangulation', helping to atone for some of the problems inherent in the questionnaire/survey method. For example, it is well known that questionnaire surveys are prone to 'the reproduction of rhetoric'; that respondents are often unwilling to admit 'failures' or doubts about what they are doing, and that there is a tendency for respondents to present what they think researchers want to hear. In addition, surveys tend to make assumptions about the meaning of both concepts and actions for the respondents and, in the positivist tradition, necessarily tend to impose the researcher's meaning on the respondents. As cited previously, these problems can be intensified in cross-cultural research.

In spite of the foregoing, a brief survey of the previous research on teacher perceptions and attitudes cross-culturally suggests that much of the work is still characterised by a tendency for "teams of researchers to go out armed with questionnaires" into countries they know little or nothing about. The cross-cultural component is seldom treated as problematic. Morris (1977) carried out a study using a standard questionnaire of teachers' perceptions of their professional freedom in 12 countries including England and France, but looked at only 856 teachers in all – in some countries under 20 teachers were involved – and, as the authors acknowledged, the findings were not generalisable and the research could be seen only as a pilot study which might inform future research. No interviews or face-to-face interaction took place between teachers and researchers and there appeared to be little acknowledgement of the possibility of cross-cultural problems appearing in the interpretation of the questionnaires, which were translated directly from English into the other languages involved.

The same lack of awareness of possible linguistic/cultural problems characterises the work of Dunham (1980) in a comparison of staff stress in English and German schools. German teachers were asked to complete a questionnaire about stress and a checklist of stress responses that was developed in England and then translated for use in Germany. Some of them were subsequently interviewed either in English or with the aid of an interpreter. Other comparative studies such as that of Saba (1983) have drawn upon existing research from different countries on a particular topic (in this case teacher effects on academic achievement) and have made comparisons

between them. Although this is a potentially fruitful research approach, it also has obvious limitations on the comparisons that can be made.

Pritchard (1983), in a comparison of teachers' perceptions of their occupational status in Germany and Ireland, appears to come closest to acknowledging the potential areas of difficulty in cross-national research by adopting an approach involving pilot studies in the two countries based entirely on open-ended questions. These pilot studies were used to develop closed category items for the main research which consisted of a self-completion questionnaire distributed in a random multi-stage sampling procedure. There would thus be a strong case for combining qualitative and quantitative approaches in cross-national comparisons and this is what the Bristaix study has sought to do.

The research design involved a three-level strategy of questionnaire, interview and classroom observation. In addition, teachers were asked to keep diaries of their professional activities outside school hours. The first stage of the enquiry was based on two matched samples of 400 [1] teachers in each country. The advantages of geographical proximity, as well as relative similarity, led to the decision to take the County of Avon as the basis for the English sample and the Academy of Bouches du Rhône for the French. In Avon the two major towns of Bristol and Bath match in many respects the conurbations of Marseilles and Aix en Provence, respectively. The former are large, industrial ports with a rapidly growing tertiary sector, the latter are both historical spa towns with a heavy emphasis on tourism and the arts as well as some new developments and industry.

It was further decided to strengthen the comparative rigour, as well as deepening the potential interest of the enquiry, by drawing the sample from schools in four matched socio-economic zones – 'rural', 'inner-city', 'low income' and 'high income suburban'. The two main criteria for this zone identification were the socio-economic status of the population and an index of 'social stress' based on levels of unemployment, number of immigrants, quality of housing and relative density as set out in statistics provided by the Institut National de la Statistique et des Études Économiques 1975, 1982 in France and Avon Planning Office (social data 1981). Schools were chosen where the catchment areas most nearly conformed to the zone characteristics identified.

The decision was taken to study primary rather than secondary teachers in order to cut down the further variation that would have been introduced by subject specialism and the more complex organisational setting of typically larger secondary schools.

The second and third stages of the research involved intensive interviews and detailed observation of a small subsample of the original cohort. In each country, 16 teachers were chosen for detailed study, drawn (in all but the 'rural' zones where more than one school had to be used) from one 'ideal-type' school in each of the four socio-economic zones. As well as being interviewed,

each of the teachers was observed intensively for a week with a view to establishing the influences that affect their teaching style and their day-to-day practice in the classroom. These observations were based on a combination of ethnographic field notes and a more systematic, but still highly detailed, observation schedule adapted from Powell (1985). Each of the teachers was also asked to keep a diary of his or her professional activities out of school hours for that week as a means of comparing the breadth of his or her commitment. The aim of this intensive and qualitative fieldwork stage of the research was to illuminate teacher perceptions in greater depth than is possible by questionnaire methods, and to explore more fully some of the interesting themes and issues that had emerged from the questionnaire study.

In what follows we describe some of the important differences between French and English primary teachers as these emerged in our study. We begin with a brief 'identikit' profile to highlight the main differences in working conditions between the two countries. These will be compared with evidence concerning the *perceptions* teachers have of their professional role. A consideration of what the implications of these differences for current policy developments in the two countries might be will, it is hoped, provide both a substantive conclusion to the paper and a more general insight into the potential of this kind of comparative study.

Initial Findings

A Profile of Carol and Françoise

Carol West is typical of the English primary teachers in our sample. She is in her mid to late 30s, and has taught for 15 years, 7 of them in her present school. She lives about 5 miles away from her school, which is in a suburb of Bristol and has a journey of about 20–25 minutes to get there. She teaches a 4th-year junior class of 30 pupils in a school of 210 pupils.

If Carol is typical of the English primary teacher, Françoise Dupont is typical of the French primary teachers in our sample. Although she is fairly close to Carol in terms of age and experience, in many ways the world in which Françoise works is very different from the one in which Carol works. Françoise is in her late 30s or early 40s, works in a primary school in a suburb of Marseilles and has taught for over 20 years, about 8 of them in her present school. She lives reasonably close to her school and has a journey of less than 15 minutes to get there. At this point, however, the similarity ends. Françoise teaches a class of only 22 pupils in a school of 170 pupils.

Like all French teachers, she has the status of a civil servant and in exchange for security of employment, a pension and personal guarantees, is expected to accept that, in theory at least, the state is entitled to control, assess and sanction the manner in which the profession operates [2]. Françoise is not expected to perform such duties as registration or supervision of school meals, nor to stand in for absent colleagues.

The day-to-day life described by Carol and Françoise reveals significant differences. Françoise takes no part at all in extra-curricular activities, and her colleagues who do run school clubs, workshops, choir, etc. are in the minority. She rarely works in close collaboration with her colleagues, but when she does, this mainly takes the form of an exchange of skills or groups of pupils.

In contrast, Carol expects to take part in organising out-of-school activities and indeed sees it as an integral part of her work. She runs at least two school clubs each

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week. In her professional life she works frequently in close collaboration with colleagues, discussing work with them, and exchanging skills and groups. Françoise has some difficulty in describing her 'teaching style'. It does not appear to be a concept with which she is familiar, but in an outsider's view, it might be described as verging more towards the formal and traditional than that of her English colleagues.

The French primary teacher has fewer opportunities than her English counterpart to take part in in-service training and correspondingly Françoise feels this to be of only moderate importance as an influence on her work. Carol, in contrast, sees it as a very strong factor affecting her work as a teacher. She is also far more likely to mention the need to update herself professionally, to keep abreast of the subject, 'learn new techniques', etc. as an important part of her professional responsibility. Françoise does not mention this spontaneously when asked what professional responsibility means to her.

Both teachers see their responsibility to their pupils as an overwhelmingly important aspect of their work. For both Carol and Françoise their pupils' level, behaviour and needs are the second most important influence on their teaching practice and one of the most significant constraints on their choice of teaching methods and curriculum. However, their view of the way in which this responsibility should be exercised and the role they accord to their pupils in the teacher–pupil relationship differ considerably. Françoise seldom or never takes her pupils' opinions into account when evaluating the results of her work, nor does she feel it important to do so. In contrast, Carol often uses pupils' opinions as a means of evaluating her classroom practice and regards such a source of evaluation as very important. Carol is also more concerned than Françoise with pupils' behaviour in class and with 'keeping pupils constructively engaged'. In addition, Carol sees her participation in the extra-curricular activities with pupils as an important influence on her work, while for Françoise who runs no extra-curricular activities this is clearly of no importance. Françoise does not see it as essential that children should see the relevance of the work they are doing, while for Carol this is absolutely crucial. While Françoise's pupils are very important to her, she appears to grant them less autonomy as individuals. Although she is ready to respond to their level and needs as perceived by her, she is less ready to take into account their opinions. That they see the relevance of what they are doing (a possible step towards self-direction in learning) is less important to her than their acquisition of knowledge and their ability to apply it in the future.

There is a great divergence between the attitude of the French and English teachers towards the role of parents. Both Carol and Françoise are in complete agreement that teachers as professionals are in a better position than parents to make decisions about curriculum and teaching methods. Both argue that teachers should not adapt their teaching (curriculum and methods) to meet parents' wishes, but that teachers *do* have a duty to explain the methods they use to parents. However, at this point they begin to diverge.

When it comes to her professional relationship with parents, Carol is much more likely than Françoise to involve parents and to have parents actively participating in classroom activities. On the other hand, she sees parents less often to discuss a child's progress. She often takes parents' opinions into account when evaluating her work with pupils and sees this as an important way of assessing her teaching. In addition, she is very concerned with parents as an influence, although not *the* most important influence on her teaching practice, and she also has a strong feeling of responsibility in the sense of accountability towards parents.

Françoise, on the other hand, rarely or never takes parents' opinions into account when evaluating her work with pupils and does not see this as an important way of assessing her work. For her, parents are not important as an influence on her teaching practice. She, too, feels a sense of responsibility and accountability towards parents, but less strongly than Carol, nor does she feel as convinced as Carol that teachers should be

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ready to listen to parents' opinions and be available to discuss personal matters with parents. On the other hand, she feels quite strongly that a child's progress in school is ultimately the responsibility of the teacher, while Carol disagrees with this, perhaps influenced by her consciousness of 'parent power'.

Carol also has a very clearly marked sense of responsibility towards her headteacher, which is not shared by François, and this strong difference in attitude is maintained in all matters concerning the head. Carol's teaching practice is heavily influenced by the headteacher and she also sees the head as an important source of evaluation of her work. She might even go so far as to remark, 'If you do not agree with your head, change your school'. In contrast, Françoise feels very little sense of responsibility towards the head and never has her work evaluated by him or her, nor does she see the head as an important influence on her teaching practice.

Françoise's sense of responsibility towards the educational hierarchy does not differ nearly as much from Carol's as one might reasonably expect given the former's civil servant status and the highly centralised administration of the educational system. She feels a certain amount of responsibility/accountability towards the inspector, and the inspector is a more important influence for her than for Carol, but the differences in the two teachers' responses are not enormous. The results of Françoise's work are seldom, if ever, evaluated by the inspector, although in theory she feels evaluation by the inspector to be of some (not great) importance. Françoise has more contact than Carol with school governors and LEA administrators/elected representatives, but neither teacher mentions governors and officialdom as a constraint on her teaching practice.

Data Analysis

Teaching Goals

From the mass of comparative data we have collected, we wish to highlight two main themes for comparison in this paper. The first concerns the overall objectives of the teachers studied and the second the influences and constraints that affect their ability to achieve those goals. Table 1 demonstrates how much more emphasis French teachers place upon basic skills and academic knowledge, as opposed to English teachers' quite different concern with the development of intelligence and all-round education. There is also, for the English teacher, a basic complement of non-cognitive objectives including factors such as the desire to learn, socialisation and personal development. These differences are well summed up in two quotations from teachers in our sample with the French teachers typically arguing the importance of:

> Making sure that my pupils acquire the knowledge appropriate to the level of the class and doing this with commitment.

> Doing my duty to make sure that my pupils acquire a certain body of knowledge. I am obliged to do everything possible to attain this.

The English teacher will typically stress more developmental goals relating to the child's intelligence and personality:

> Creating an atmosphere whereby children will learn through experience, moral and social norms, physical skills and aspects of health

TABLE 1. Responsibility for what? Percentage of teachers mentioning each of the following objectives in relation to pupils

Objectives	England	France
Development of intelligence	46·0	17·6
'All-round' education	41·4	17·3
Socialisation	33·8	25·9
Personal development	31·7	19·1
Desire to learn	21·8	16·6
Physical development	18·3	11·5
Academic knowledge	14·7	55·6
Basic skills, '3 Rs'	13·3	61·2
Moral education	9·8	9·3
Happiness at school	7·5	8·0
Understanding of the world	4·9	3·9
Preparation for adult life	3·6	23·2
Artistic education	3·2	2·3
Leisure activities	1·6	0·0
'Toughen' them for a difficult life/ help them succeed in spite of the system	1·3	3·9
Citizenship	0	6·8
Total No. of teachers mentioning at least one of these objectives	298	260
Proportion of total sample mentioning at least one of these categories (%)	82·7	72·3

and hygiene, developing enquiring minds and creativity, and generally to develop, progress and fulfil their potential.

In Table 2, these average differences are broken down for certain key objectives in terms of the socio-economic zone in each country. We find that in France the inculcation of basic skills achieves even more importance in the eyes of the perhaps more traditionalist rural and average suburban schools, and less so in the inner-city and affluent suburban schools. In both the last two cases we may hypothesise that the teachers have decided some slight difference in priorities in the formulation of their teaching goals.

A similar contrast is apparent in relation to academic knowledge versus the development of intelligence. The latter assumes rather more importance in affluent suburban areas where perhaps the emphasis on basic skills can be taken as read. Perhaps too, the greater emphasis on toughening children for a difficult life in the inner city is not without significance. These figures highlight the more general evidence from our data that English teachers typically have a very broad conception of their role, which includes the intellectual, personal and social development of the children in their care, as against a much narrower definition on the part of the French teachers, in which the goal is to bring all children up to the level of achievement laid down for a particular year group.

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TABLE 2. Responsibility for what? Percentage of teachers mentioning each of the following objectives in relation to pupils

Objectives	Socio-economic zone				
	Rural	Average suburban	Inner city	Affluent suburban	Mean
France					
Academic knowledge	62·5	69·4	54·0	36·7	55·6
Desire to learn	16·6	18·4	8·2	23·3	16·6
Happiness at school	2·1	8·2	6·6	15·0	8·0
Socialisation	33·3	22·4	13·0	35·0	25·9
'All round' education	22·9	18·4	19·6	8·3	17·3
Leisure activities	0	0	0	0	0
Preparation for adult life	18·8	24·5	29·5	20·0	23·2
'Toughen' them for a difficult life	0	4·1	9·8	1·7	3·9
No. of teachers = 260; N = 60		53	68	79	
England					
Academic knowledge	14·1	14·7	10·6	19·2	14·7
Desire to learn	25·6	18·7	19·7	23·0	21·8
Happiness at school	7·7	5·3	11·8	5·1	7·5
Socialisation	35·8	37·3	31·5	30·7	33·8
'All round' education	26·9	49·3	36·8	52·5	41·4
Leisure activities	2·6	1·3	1·3	1·3	1·6
Preparation for adult life	6·4	6·7	1·3	0	3·6
'Toughen' them and help them succeed in spite of the system	0	0	3·9	1·3	1·3
No. of teachers = 298; N = 70		74	72	82	

TABLE 3. 'Being a teacher': Reflections on the role (percentage of teachers mentioning each category)

Category	England	France
Fulfil role to best of one's ability	34·2	36·6
Justify actions to others	17·9	3·7
Continuing training and improving knowledge	15·0	7·4
Importance of teacher's position/conception of role	14·7	36·2
Upholding the profession	11·4	2·8
Acting as a 'model' for children	10·4	11·8
To be committed to the job	7·1	29·7
Self-evaluation	5·5	5·6
Protective role	1·6	2·1
Impossible to say	1·0	2·6
Total No. of teachers mentioning at least one of these categories	243	211
Proportion of total sample mentioning at least one of these categories (%)	67·5	58·5

TABLE 4. Responsibility for areas of teaching: Percentage of teachers mentioning each category

Category	England	France
General classroom activities	32·6	20·3
Teaching approach	24·5	46·9
Relationships with colleagues	23·1	4·1
Relationships with parents	19·0	5·6
Relationships with pupils	15·0	11·3
Content	13·3	25·0
Administration	11·0	0·7
Methods	9·8	11·0
Evaluation	6·9	4·7
Extra-curricular activities	5·2	0·7
Activities outside school, e.g. in local community	2·3	0
Total no. of teachers mentioning at least one of these categories	275	164
Proportion of total sample mentioning at least one of these categories (%)	76·5	45·6

We move now to a more general analysis of how the teachers see their role. Tables 3 and 4 offer some insights into the way in which teachers spontaneously described being a teacher. Table 3 emphasises the point that English teachers feel the need to be able to justify what they are doing to a

TABLE 5. Teachers' conceptions of their role (factor analysis)

Assertions	Saturations	
	French sample	English sample
Idealism		
1. It is a vocation	0·79	0·82
5. It is a way of giving meaning to my life	0·71	0·64
4. It is about the daily pleasure of contact with children	0·55	0·57
2. It is a way of earning one's living like any other	−0·81	−0·72
Realism		
6. It is a very hard job	0·81	0·83
7. It is to be daily disillusioned	0·82	0·76
8. It is to do a job little valued by society	0·60	0·49
Social possibilities		
3. It is adventure in collective creation with my colleagues	0·75	0·45
9. It gives one the possibility of interesting social relationships	0·48	0·76
10. It is being isolated in one's work	−0·59	−0·65

Percentage of total variance explained by the three factors: France, 55·1 %; England, 54·1 %.
Percentage of total variance explained by the first factor: France, 25·5 %; England, 25·7 %.

number of different audiences, whereas for French teachers the more central theme is the justification to oneself through one's own commitment to the job. Table 4, equally for French teachers, emphasises the centrality of issues to do with teaching and curriculum content in relation to which almost anything outside the classroom has a very marginal significance. This pattern is by no means so clear-cut for the English teachers.

The responses of teachers in this respect were further explored through a factor analysis of responses made to various statements offered in our original questionnaire. The factor analysis identified for each cohort the three factors set out in Table 5, which we have called 'Idealism', 'Realism' and 'Social possibilities'. These factor analyses reveal a striking similarity, particularly in relation to factor 1, which perhaps concerns the original reasons why individuals chose to be teachers and what keeps them doing it despite some of the more difficult aspects of the job. It would appear that the French teachers are rather more disillusioned and bitter about society's attitudes to them and

TABLE 6. Influences on teaching practice

France		England	
Variables	Saturation	Variables	Saturation
First factor			
Training in personal relationships	0·77	Training in personal relationships	0·67
Participation in school-related activities	0·71	Initial training	0·62
Involvement in teaching movement	0·68	Ideology	0·60
Participation in courses	0·58	Participation in courses	0·58
Initial training	0·46	Involvement in teaching movement	0·47
Second factor			
Personal reading	0·63	Colleagues	0·68
Personal experience	0·55	Headteacher	0·67
Inspector	0·54	Inspector	0·56
Headteacher	0·54	Parents of pupils	0·48
Colleagues	0·54		
Third factor			
Influence of own family	0·70	Personal experience	0·67
Ideology	0·63	Pupils	0·60
Parents of pupils	0·61	Personal reading	0·41
Pupils	0·56		

the educational process, and certainly the social support evident among the English group appears to be lacking, to some extent, for the French.

The second factor analysis relating to teachers' responses about the perceived sources of influence on their practice revealed a rather different pattern. Table 6 shows that the first factor, which we have called 'Professional development', is broadly similar for the two groups, emphasising in both cases the role of training and a sense of professional identity. Next for the French group comes the day-to-day influence of their own activities and those who have a direct contact with the headteacher and colleagues, etc. Finally, for the French, is a group of influences centring around personal experience and the influence of pupils. For the English cohort there is also a first dimension, relating to training, which is very similar. The two other dimensions, however, are noticeably different. The second dimension is concerned more closely with the school itself and groups together the influences of other persons involved in the running of the school, with colleagues, the headteacher, the school inspector and parents all figuring. The third dimension, by contrast, groups together more personal influences on the teacher, such as that of pupils, personal teaching experience, reading and independent study. There would,

TABLE 7. Constraints on teaching (%)

Constraint	France	England
Curriculum directives	82·0	32·0
Material resources	5·5	33·3
Pupils	30·1	40·9
Outside influences	8·9	13·9
Myself (the teacher)	5·8	25·2
Colleagues	3·8	11·0

therefore, appear to be an interesting distinction between the French teachers, who make a distinction between the 'producers' of education and the 'consumers' of education in terms of their legitimate influence, and the English teachers who distinguish personal, as against institutional, factors as sources of influence.

Constraints

The major constraints that emerge most often are those of the programmes of study or curriculum content and physical conditions (Table 7). However, the vast majority of French teachers (82%) mentioned the programmes of study, whereas very few mentioned the physical conditions (5·5%). Considerably fewer English teachers mentioned the programmes of study (32%) and many more mentioned the physical conditions – such as large classes, lack of resources and so on (33%). The pattern is similar for the major constraints affecting teaching methods (Fig. 1).

Of course, at the time of our study, the National Curriculum had not yet been implemented in English schools and more recent research (PACE, 1990 [3]) suggests that English teachers' perceptions of freedom of choice over content, although not teaching methods, are beginning to alter.

The fact that one English teacher in every four should see his or her own characteristics and abilities as one of the major constraints affecting his or her teaching is a significant one and may be explained as follows.

It is true that the implementation of compulsory national objectives is felt to be particularly constraining by French teachers, but this contractual responsibility also implies that the initiative rests with someone else and thus the teachers have no reason to feel that they themselves are limiting what might be achieved in their teaching. The school and a national curriculum protect and reassure teachers and they can therefore remain relatively more confident about their achievements than their English counterparts. It is because English teachers are directly involved in the drawing up of aims and objectives, faced with often contradictory demands on the part of parents, children and headteachers, and so on (as Poppleton, 1986, and Nias, 1986, have also discussed) that they more often feel that they themselves are to blame. The

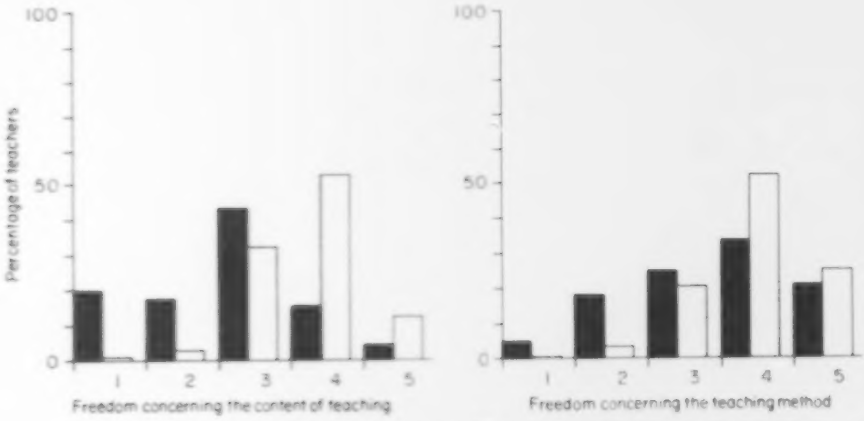

FIG. 1. Major constraints affecting teaching methods: 1, very little or no freedom at all; 2, a little freedom; 3, considerable freedom; 4, a great deal of freedom; 5, complete freedom. (■, *France*; □, *England*).

burden of responsibility that is placed upon English teachers generates uncertainty, conflict and tension and leads them to more frequent feelings of self-doubt and guilt.

> This responsibility is awesome; no teacher can ever discharge it adequately, so we all carry a burden of guilt that we do not do better. We have to learn to accept this. To acknowledge that we cannot achieve all that children deserve and set our own level of what each of us individually may hope to achieve. In other words, what is the most I can reasonably do, given my limitations with ability and resources on a particular child? (English teacher)

In this respect, it is interesting to look at the data on the subjects where there is perceived to be more or less freedom of choice. In both countries the subjects mentioned most are mathematics and language. Some 82·7 % of the French teachers mentioned mathematics as an area of high constraint, as opposed to 66·1 % of the English teachers. In language work, the contrast is even greater, where the respective figures are 61 % and 20·2 %. The fact that the humanities and arts subjects should be felt to be the least constraining by the large majority of teachers does not come as a surprise. It is certainly in this area in France, because of the particular instructions relating to those subjects, that teachers have the greatest freedom of choice. In England it will be particularly interesting to discover how far this picture has changed with the advent of the National Curriculum and its emphasis on the core subjects of English, mathematics and science. One might predict that the provision of carefully detailed programmes of study, in these and in other subjects, coupled with

systematic assessment and reporting arrangements, will absolve teachers of some of the ambiguity of their role described above. On the other hand, if teachers are reluctant to shed the kind of global conception of their role which has been described, the impact of these new programmes of study, coupled with evaluative mechanisms, will make the tension inherent in their role even greater.

Thus it would appear to be the case that it is the national context of the education system in each country that leads to different conceptions of autonomy and constraint and that these apply regardless of the social characteristics of the different locations of the schools and the different conditions that apply there.

Conclusion

The familiar stereotypes of the two national education systems studied are borne out by our data. As we suggested at the outset, however, both systems are responding to major changes in the social context of education at the present time. These changes are challenging policy-makers to address the contradictions present in both systems concerning how good teaching can be promoted without forfeiting control of educational outcomes. Not only does the solution to current concerns about standards in England appear to centre, in government eyes at least, on the provision of greater and more explicit accountability through the introduction of market competition, there would appear to be quite explicit emulation of perceived benefits in the French system.

The lessons from our study, however, suggest that the resolution of the strains inherent in a broadly defined role, problematic goals, an emphasis on process rather than product and a pedagogy that emphasises the needs and interests of each child are also likely to constitute a strong challenge to prevailing English notions of professional responsibility. The assumption to be found in French education that both the means and the ends of education can and should be generalised, is one that appears to work, because it not only relieves teachers of the need to respond to different local and pupil needs, it also accords with French teachers' professional ideology.

That this is so is well borne out by current French attempts to introduce a more flexible and broadly based role among primary school teachers. Even more than in France, current attempts to impose nationally generalised solutions and directives on primary teachers ride roughshod over what our evidence shows to be the real influences on teachers' professional motivation and practice.

At this stage, it is impossible to predict the likely impact of the National Curriculum and associated provisions on primary schools, but one would certainly predict that in addition to a sharp drop in morale, which is already evident, teachers will be exerting themselves to the utmost to find ways of continuing to apply what they consider to be the best approach to teaching,

even within the extensive national constraints now being laid down. In data currently being collected by the PACE project, it is indeed the case that many primary teachers are emphasising the need to protect children's education from the reductionist influence of some aspects of the National Curriculum to preserve the joy and warmth of the teacher–pupil relationship and to find ways of resisting the temptation to engage in more didactic forms of teaching.

As a general conclusion, it would seem unlikely that long-standing nationally informed views of professionalism will be readily changed by any kind of central policy initiative. Perhaps the more fundamental question is how these conceptions themselves evolve and what might be the most crucial factors in building up national conceptions of teachers' professional responsibility. Despite the inevitable limitations of this kind of comparative study – not least the important practical difficulties of co-ordination and sponsorship – it is also apparent from this study that failure to address national influences on teachers' practice will result in a seriously flawed analysis. Only through such cross-national research will it be possible to aspire to a comprehensive understanding of what it means to be a teacher.

Notes

[1] The final sample size was 360 in each country reduced to 90 per zone in each case in order to provide the same sample size in each of the four zones in each country.

[2] In theory, assessment of her work is continuous and only terminates with the last year of her career. She is under the supervision of a primary school inspector as well as of the *Inspecteur d'Académie* (head of local education authority), but not the head of the school. In practice, however, the regional inspector may only visit the teacher every three or four years, sometimes more rarely. The outcome of such an inspection will be a teaching mark or *note*. If she is not satisfied with the mark, she can appeal to a local committee that has the power to modify the assessment. In the case of a primary teacher such as Françoise, the final mark is taken into account mainly when considering her request for a change of school, since promotion prospects for primary teachers are limited. In the early part of her career she may well have had to teach in an 'unpopular' or 'difficult' school a long way from her home, since primary teachers can be assigned to a school anywhere in their *département* (county) and rarely get the school or area they ask for on their first appointment. (The satisfaction of their preference depends on the grades obtained in their class as well as personal circumstances.)

[3] Primary Assessment, Curriculum and Experience (PACE), based at Bristol University/Bristol Polytechnic.

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Apprentice Training in Germany: the experiences of the 1980s

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1. Introduction

In the mid-1980s the German apprenticeship scheme was facing what was possibly its most severe challenge. Whilst favourably regarded, indeed held up as a model for emulation by outsiders, its ability to deliver quality training to the large mass of school leavers was being called into question both by politicians and by policy researchers. By the end of the 1980s, however, the symptoms of crisis had largely disappeared. The consensus was becoming much more one that the 'dual system' had passed the test, and that it had the potential to provide the country with the highly skilled workforce it needed to meet the challenges of the twenty first century. This paper, drawing upon the publications of the Federal Training Institute (especially BMBW, various years) and the federal Institute for Labour Market Research, and a series of 'expert interviews', reviews the developments of the 1980s and particularly those of the last five years, and assesses the extent to which the optimistic conclusions drawn about the 'dual system's' capabilities are justified.

The remainder of the paper consists of seven sections. A brief introduction to the nature of the 'dual system' is given in Section 2. Section 3 summarises the nature of the crisis the system underwent in the first half of the 1980s, and Section 4 describes the recovery of the late 1980s. In Section 5 the changes in the nature of apprenticeships and apprentices that have taken place over the last decade are reviewed, and Section 6 looks at the responses of the government, the training authorities and employers to the sharp decline in the number of young people entering the labour market. Section 7 is devoted to an extended discussion of the process of reforming and updating training regulations, which has been a major concern of the parties involved in training over the last two decades. The results of a study that has tried to assess the impact of these regulations reforms on firms' training behaviour are reported on. A final section draws some conclusions and suggests that recent developments in what at the time of writing was the German Democratic

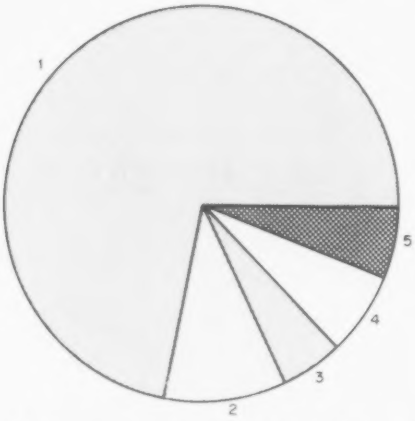

FIG. 1. Activities of a one-year age cohort six months after completing full-time schooling (schooling includes full-time vocational preparation courses). 1, 'Dual system' (72%); 2, technical college (8%) or other full-time training (1%); 3, university or polytechnics (5%); 4, work (5%) or unemployment (1%); 5, military service (3%) or other (3%).

Source: BMBW (1989), Kap. 3.2; own calculations.

Republic mean that the future for the youth labour market and the labour market for skilled workers is very unclear.

2. The Background

The German apprenticeship system is distinguished by two characteristics, first its broad coverage, second – and hence its designation as the 'dual system' – its combination of school-based and workplace-based training. Apprenticeships provide the pathway into employment for some 70% of school leavers (see Fig. 1). Training places are provided for occupations in all sectors of the economy, in services as well as manufacturing, in large firms as well as small firms, in white collar occupations as well as blue collar occupations. The period of training lasts between two and three-and-a-half years, and rather than a wage, the trainee receives an allowance which, even in the final year, is still only a fraction of the wage of a comparable skilled worker [1]. Practical training is carried out in the place of employment, either on the job or (in larger organisations) in special training centres. More theoretical training is provided by special technical schools which apprentices attend for one or two days per week [2].

Since 1969 the in-firm element of apprentice training has been governed by the Vocational Training Act. This specifies that the regulations determining the content of training are to be determined jointly at national level by

employers' organisations and trade unions [3]. The technical schools which provide the off-the-job element of training are under the jurisdiction of the individual states (*Länder*), although nowadays training regulations will normally also contain the joint recommendations of the state education ministers concerning the content of the college-based training to be given. Responsibility for monitoring the performance of firms lies with the local chambers of industry and commerce or of artisan business, to which all employers are obliged to belong. The chambers set and conduct the final examinations, and it is they who award certificates of skill competence.

In most years during the 1960s and 1970s the overwhelming majority of young people seeking a training place had been able to find one. Not all received a place in the firm of their first choice, or even in the occupation of their first choice [4], and there were some regional mismatches in supply and demand for apprenticeships, so that the positive net balances (surplus of places offered over applicants) recorded at a national level in most years did disguise some cases of negative net balances at the occupational or regional level. However, these were generally, if not universally, regarded as of minor significance.

Youth unemployment was still seen as a problem, but it was seen as a problem specific to certain 'disadvantaged groups', which failed to gain or had difficulty gaining entry into the apprenticeship system, or having gained entry subsequently dropped out. Examples of such groups included the children of foreign workers, who had completed only a small part of their schooling in Germany and/or who lacked a sufficient mastery of the language, those who had learning difficulties at school and had failed to obtain even the basic school leaving certificate, those suffering from physical and other handicaps, and those who had started an apprenticeship but had been forced to abandon it through the bankruptcy of their employer or the partial or total closure of their place of work. It was to help these groups that the special programmes and schemes were established, and these programmes and schemes were designed not as alternatives to the 'dual system' but rather as complements to it, to enable participants to transfer into or back into it.

3. The Crisis of the Early 1980s [5]

At the start of the 1980s the youth labour market was struck two blows simultaneously. The second oil price rise and the subsequent recession led to a sharp increase in unemployment as firms rationalised and reduced their workforces. In the large firm sector, training activity, which had always tended to follow a procyclical path, was also cut back. At the same time the post-war 'baby-boomers' were coming on to the labour market in their greatest numbers. Between 1970 and 1981, the peak year, the number of 16- to 19-year-olds in the population rose by a third, putting maximum demands upon the employment and training system at a time when it seemed least able to meet them. Despite appeals by the federal chancellor, other national and state

TABLE 1. Demand for and supply of apprenticeship places (thousands)

	(1) New apprenticeship contracts	(2) Unfilled apprenticeship places	(3) Unplaced applicants	(4) Shortfall(−)/excess(+) of places offered = (2)−(3)	(5) (4) as % of (1)+(3)
1974	450	29	21	8	1·8
1975	462	18	24	−5	−1·0
1976	496	18	28	−10	−1·8
1977	558	26	27	−2	−0·3
1978	602	22	24	−2	−0·2
1979	640	37	20	+17	+2·6
1980	650	45	17	+27	+4·1
1981	606	37	22	+15	+2·4
1982	631	20	34	−14	−2·1
1983	677	20	47	−28	−3·8
1984	706	21	58	−37	−4·9
1985	697	22	59	−37	−4·9
1986	685	31	46	−15	−2·1
1987	646	45	34	+11	+1·6
1988	604	62	25	+37	+5·9
1989	584	85	18	+67	+11·1

Due to rounding, totals do not always add.
Source: BMBW, various years.

politicians, and representatives of industry, which resulted in more training places being offered in 1984 than ever before, the shortfall that year was also greater than at any time in the past. Based upon a conventional interpretation of supply and demand statistics, which were in any case subject to criticism for disguising the true extent of the problem, a net deficit of 5% was recorded for 1984 (Table 1). Nearly 60,000 young people were still looking for an apprenticeship place at the start of the training year in September, whilst an unknown number had at least temporarily abandoned their wishes and either returned to school or technical college or had gone out on to the market for unskilled jobs [6].

At the same time as very many young people were experiencing especial difficulties in surmounting the 'first threshold', the transition from the school system to the training system, yet others were experiencing especial difficulties in surmounting the 'second threshold', the transition from the training system to the employment system. This, too, was an almost entirely new phenomenon. Traditionally, or so it was generally thought, the large majority of apprentices, and practically all of those who wished to, stayed with the company that trained them once they had successfully completed their apprenticeships. The assumed high costs of providing training suggested it would be in the firm's interests that this were so. It was only in the early 1980s that, on the basis of

large-scale surveys conducted by the federal authorities, it began to be recognised that the picture was rather more complex. There was a much higher staying rate and a much higher retention rate in large firms than in small firms and in certain occupations as compared to others.

These findings were consistent with propositions advanced elsewhere that there was a fundamental difference in approach to the provision of apprenticeship training between the industrial and commercial (or large firm) sector and the artisan (or small firm) sector [7]. Firms in the former sector can be characterised as adjusting their training levels in accordance with short- to medium-term business prospects, but also as investing substantially in the training they give. Firms in the latter sector appear to train anticyclically and seem much less likely to regard training as an investment [8]. Instead, they appear to give much more weight to apprentices' contribution to production, viewing them as a source of cheap labour, and in consequence have an almost unlimited demand for trainees [9]. When the number of training places offered by the large firm sector shrinks (as a result of economic developments), or the numbers seeking apprenticeships rise (as a result of demographic developments), so is the small firm sector better able to satisfy its demand for trainees [10]. Once these apprentices have completed their training they are no longer so attractive to the firms concerned. A substantial proportion are discharged or, seeing few prospects, leave. Many seek jobs in the large firm sector, often at a semi-skilled level (hence the quip about Opel – the motor vehicle manufacturer – being the largest employer of bakers in the country) [11].

In the mid-1980s, as record numbers were completing their training, it seemed that as many as 20% of newly graduating apprentices who wanted to stay were not receiving takeover offers (Herget *et al.*, 1987) – a share four times as great as that which prevailed at the start of the decade. Larger firms were not offering the same semi-skilled job opportunities as they had previously, and thus they were less able to absorb the excess trainees of the small firm sector. Moreover, they also found themselves less able to employ all those they had trained themselves, particularly those who, in response to political pressures, they had trained for 'social' rather than 'economic' reasons [12]. As a consequence, the equivalent of over one in eight of all those completing their apprenticeships in 1984 spent at least some time subsequently unemployed and in September that year the stock of unemployed newly graduating apprentices stood at nearly 50,000 (Table 2).

4. The Recovery of Recent Years

Within five years the situation had changed substantially. This was only in part the consequence of an about turn in the German economy. From Table 3 it can be seen that in the second half of the 1980s employment grew and unemployment fell scarcely faster than in the other major OECD countries, whilst output growth was comparatively sluggish. Much more it was the consequence of the shrinking size of the youth cohort, at a rate even faster than

TABLE 2. Unemployment after an apprenticeship

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Number successfully completing an apprenticeship (000s)	503·7	567·3	603·4	620·4	616·4	604·8	632·5	675·0	680·1	643·1
Number registered as unemployed after an apprenticeship (000s end September)	7·7[a]	8·7[a]	19·0	40·7	54·4	46·4	37·2	33·1	29·5	21·0
Rate of unemployment after an apprenticeship (%)	1·5	1·6	3·1	6·6	8·8	7·7	5·9	4·9	4·3	3·3
Flow into unemployment after an apprenticeship (000s Jan–Dec)	NA	NA	NA	53·8	77·2	81·1	87·0	87·9	90·6	81·5
Flow as a percentage of number successfully completing an apprenticeship	NA	NA	NA	8·7	12·5	13·4	13·8	13·0	13·3	12·7

[a] Extrapolated; NA, not available.

Source: Federal Ministry for Education and Science; Federal Labour Office; own calculations.

TABLE 3. Output, employment and unemployment

	1984	1985	1986	1987	1988	1989
GDP (1985 = 100)						
Germany	98·0	100·0	102·3	104·0	107·8	112·1
major OECD countries*	96·8	100·0	102·7	106·4	111·2	114·9
Employment (1985 = 100)						
Germany	99	100	101	106	107	108
major OECD countries*	99	100	101	103	105	107
Unemployment (%)[b]						
Germany	7·1	7·2	6·4	6·2	6·1	5·5
major OECD countries*	7·3	7·2	7·1	6·7	6·1	5·6

* USA, Canada, Japan, Germany, France, Italy, UK.
[b] Standardised.
Source: OECD Principal Economic Indicators; OECD Quarterly Labour Force Statistics; own calculations.

that at which it had previously expanded. Between 1981 and 1989 the number of 16- to 19-year-olds fell by 35%. Whilst, for reasons to be discussed later, this did not translate immediately into an equivalent reduction in the numbers seeking a training place, demand for apprenticeships certainly diminished. By 1989 the national balance in the supply of and demand for apprenticeship places had switched from the 5% deficit recorded for 1984 to an 11% surplus. The number of young people officially categorised as failing to find an apprenticeship fell at the start of the 1989/90 training year to only 18,000 – only 30% of the 1984 level (see Table 1). Equally, there were indications that the transition from apprenticeship to employment was preceding more smoothly. The relative number of newly graduating apprentices experiencing some unemployment on graduation remained much the same as four years previously (13%), but the number registered as unemployed in September 1988 was much lower, standing at only 21,000 (see Table 2). This suggested that the average duration of 'unemployment after an apprenticeship' was considerably shorter.

Consistent with the previously discussed proposition of inter-sectoral differences in training behaviour, there was a relative fall in the number of new training places accounted for by the small firms (artisan) sector and a relative increase in the number accounted for by the large firms (industrial and commercial) sector [13]. In the same way, there was a decline in the numbers starting training in those, mainly artisan, occupations for which the number of new apprenticeship contracts had increased rapidly over the previous decade and out of line with future employment prospects for workers with the skill concerned (see Casey, 1986).

TABLE 4. Ratio of supply to demand of apprenticeship places by state

State	1982	1989
Schleswig Holstein	95·9	104·1
Hamburg	95·3	98·1
Lower Saxony	95·3	104·0
Bremen	93·7	98·2
North Rhine-Westphalia	96·8	102·6
Hessen	95·1	110·3
Rheinland-Pfalz	95·6	112·6
Baden-Württemburg	100·9	119·7
Bavaria	101·2	128·0
Saarland	95·4	108·4
Berlin (W)	95·6	107·3
Federal Republic	97·5	111·1
Coefficient of variation	0·0248	0·0980

Note: The table reads as follows: In Hamburg in 1982 there were 95 apprenticeship places offered for every 100 young people seeking one. The coefficient of variation is a standardised measure of dispersion. A value of 0 would indicate that every state had the same balance between demand and supply. The extent of dispersion in 1989 was four times as great as in 1982.
Source: BMBW, 1983 and 1990; own calculations.

If, at the end of the day, the most apparent threat to the legitimacy of the 'dual system' had been overcome, the employment and training market for young people was not entirely unproblematic. A closer examination of the net demand and supply ratio for apprenticeship places at state level reveals this (Table 4). The overall positive balance of 11% was contributed to by, amongst others, a deficit of 2% in the city state of Bremen and a surplus of 28% in Bavaria. The phenomenon of mismatch, to which these figures bear testament, is one that has been growing in importance; inter-regional disparities have been worsening throughout the 1980s, almost regardless of developments on the national (youth) labour market. Back in 1982 Bavaria (still the 'best performer') recorded a net surplus less than 4 percentage points better than the national average, whilst Bremen (still the 'worst performer') recorded a net deficit only 4 percentage points worse than the national average.

The performance of the 'dual system' throughout the 1980s reflects the much more widely commented upon growing north–south divide in Germany. The industries of the south are often more modern than those of the north, and they have more often been growing than contracting. However, the dominance of small firms in the south has also played a part, for as has been pointed out, such firms employ relatively more apprentices. So far the federal authorities have proposed no specific measures to counter the problem of the regional

TABLE 5. Characteristics of apprentices (%)

	1970	1979	1988
Average age	16·6	17·6[a]	18·5[c]
Sex			
male	64·7	62·2	56·9
female	35·3	37·8	43·1
Educational qualification			
basic high school certificate	NA	NA	24·3
matriculation	NA	6·5[b]	16·1
Occupation			
production	46·7	50·7	46·8
service	46·5	43·3	47·3
Sector			
artisan	33·0	41·1	34·8
industry/commerce	57·1	45·4	49·9

[a] 1978; [b] 1980; [c] 1987.
Source: BMBW, various years; own calculations.

imbalances in the market for training places, although young people who leave home to take up an apprenticeship in another part of the country are eligible for special benefits to help meet the costs of accommodation and travel. In addition, it is now generally agreed that regional policy should accord apprentice training provision a greater priority [14].

5. The Changing Character of the System

The character of the apprenticeship system has changed in other ways in the course of the last decade. As was hinted at earlier, the age profile of young trainees has changed considerably. The typical new apprentice is not a 16-year-old school leaver, and has not been for many years. The average age of an apprentice in 1987 was some 18·5 years, one year higher than at the end of the 1970s and two year higher than at the start of that decade (Table 5).

There are a number of explanations for this. First, in the 1970s, as a growing proportion of young people stayed on at school to complete their matriculation certificate, the effective school leaving age was rising. More important, however, a growing proportion of those who passed their matriculation examination chose not to go on to university (or at least not immediately), but instead to take up an apprenticeship [15]. In 1988 as many as 16% of all apprentices possessed their matriculation certificate, compared to 6·5% 10 years previously (Table 5). Whilst it cannot yet be said that any training occupations have become the exclusive preserve of those with such a qualification, or that the possession of such a qualification is a necessary requirement for taking up training in a particular occupation, highly qualified

school leavers are to be found concentrated in a very few occupations, mainly in commerce, insurance and banking.

A second explanation is that a growing proportion of young people are not entering apprenticeships directly from school. Research carried out in the first half of the 1980s drew attention not only to the variety of routes coupling the school to the training system but also made an attempt to quantify their relative importance (Brandes *et al.*, 1986). Whereas, it was estimated, some 70% of those leaving the general school system do eventually take up an apprenticeship, half of them do not do so immediately. Some 23% spend a year or more as a full-time student at a vocational school or on a special preparatory course, and 11% spend time working, being unemployed or inactive, or doing their military service. On this basis it can be calculated that in the early to mid-1980s only one half of new entrants into the 'dual system' were entrants direct from school, a third came from vocational schools and preparatory courses, and the remainder from amongst those otherwise away from the general school system. Since it ceases to be only minimum-age school leavers who determine the demand for training places, but older teenage groups as well, it is not surprising that the numbers seeking an apprenticeship failed to follow the size of the 16-year-old cohort down immediately but did so only with a lag.

The contributors to the existence of that lag were one of the reasons for the ageing of the apprentice population. It is a question worth asking if this process was intensified by cyclical factors or whether it was the product of longer-term secular developments. The federal government and the federal labour market authorities and the individual states increased their support for the 'dual system' at the time when it was facing its most severe challenge, and as well as giving aid for the establishment and extension of 'external' (*überbetriebliche*) training centres [16] (the federal government) and subsidising in-firm apprenticeships for special groups (the state governments), they promoted a number of initiatives that were not firm-based. These were both the making available of grants to those undertaking preparatory courses in vocational schools (the federal government, but as of 1988 the labour market authorities), and the setting up of special preparatory courses for specific 'disadvantaged groups' (the federal labour office) located either in training centres or in vocational schools. Examination of the numbers of participants in these various measures does not indicate that their size varied in a cyclical manner; rather there was in aggregate a relative constancy in the numbers in school-based courses and a steady growth in the numbers in the labour market authority's measures. In relative terms, however, the latter were small, encompassing only some 44,000 young people at the end of the decade.

There were other ways, too, in which the character of the 'dual system' was changing in the course of the 1980s. Some, like that of the gradual increase in the age of apprentices, were of a long-term nature; others were much more short-term developments, sometimes reversing trends of a previous period. The most important of the first type of change was the increase in the

proportion of apprentices who were female. At the start of the 1970s women constituted scarcely over one-third of the total; by 1988 they made up 43% and it is generally assumed that the upward trend will continue in the coming years (Table 5). More volatile, by comparison, have been the relative shares of the service and production occupations and, related to this, of the large firms (industry and commerce) sector and the small firms (artisan) sector. As has been described already, there was a marked increase in the proportion of apprenticeships being undertaken in the small firm sector in the 1970s, but this movement was to some extent undone in the latter part of the 1980s. As the share accounted for by the small firms sector rose, so, but less than proportionately, the share accounted for by service occupations fell. As the share accounted for by the large firms sector grew again in the 1980s, so again the share accounted for by service occupations grew (Table 5). Forecasts of the future structure of the labour force suggest that this trend too is likely to continue into the coming decade (Hofer *et al.*, 1989).

6. The New Demographic Challenge

Both the ageing and simultaneously higher level of qualification of the apprentice population, and its gradual feminisation, are developments relevant to the principal concerns of employers and politicians engaged in thinking about training requirements and training policy for the 1990s and beyond. Once again, the problem facing the German youth labour market is one of demographic change, but the manifestation of the problem is the very opposite of that which it was in the early 1980s. Instead of there being a 'surplus' of young people seeking apprenticeships, there is likely to be a shortage. The fall in the size of the 16–19 cohort which commenced in 1981 will continue to the mid-1990s, and in 1995 the number of young people in this age-group will be only 55% of its 1981 level. A small recovery but then stabilisation is expected thereafter (Fig. 2). Aggravating a demographically induced problem is a change in the behaviour of young people and their attitude towards training. By the end of the 1980s the proportion in possession of a matriculation certificate who were opting to follow an apprenticeship rather than higher studies had ceased rising and, indeed, had started to fall, and this fall is expected to continue into the 1990s. Compared to a high point of just over 700,000 new apprenticeships that were concluded in 1984, the prediction is of only 500,000 in 1995. A commonly expressed fear is that the resultant shortfall in the number of skilled workers will prejudice the ability of the economy to train a sufficient quantity of skilled manpower to assure the pre-eminence of the country as a supplier of quality goods and services [17].

Various ways have been suggested to overcome this problem. One has been to encourage more efficient use of the most highly qualified applicants for training. Whilst the training regulations for each occupation specify the normal duration of an apprenticeship, they do permit a reduced duration under certain circumstances. Such reductions are made in practice, but there

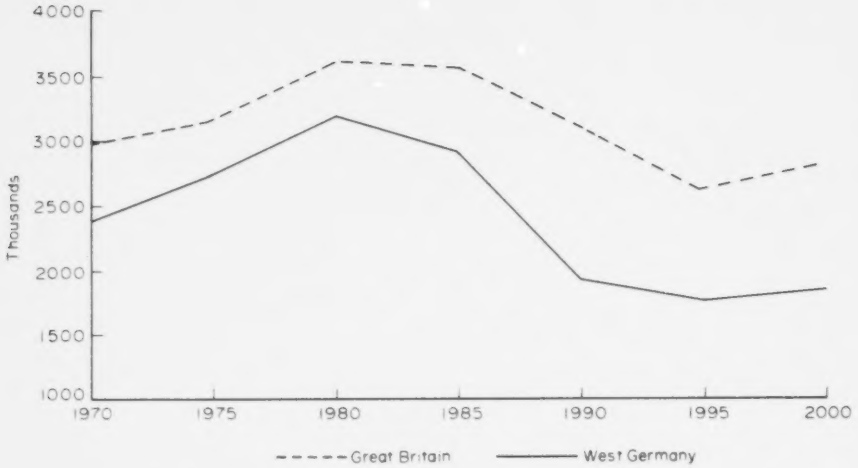

FIG. 2. Number of 16- to 19-year-olds in the population in Britain and Germany, 1970–2000.

Note: 1990 onwards are projections. Source: Federal Ministry for Education and Science; Department of Employment.

is no systematic knowledge of when and why. Over the last few years, the government and the Federal Training Institute have been exhorting employers to make greater use of the possibility to accelerate training for those applicants possessing a matriculation certificate. As well as making any given intake more quickly serviceable, this might increase the attractiveness of apprenticeships to the more highly qualified, who feel that their certificates are being duly recognised. In consequence, it might help overcome the stagnation or decline in the proportion of those with a matriculation certificate choosing the apprenticeship route, which has been observable in the last year or so. Furthermore, it is recognised that if the more highly qualified are to be better exploited, they will have to be attracted into more occupations than the narrow range in which they are currently concentrated. Whether it will indeed be possible to induce them into traditional production occupations remains to be seen, but it is possible that the transformation of jobs consequent upon new technology might have a positive impact.

Young women, too, are seen as an under-utilised resource. They have traditionally trained in a very limited number of occupations, mainly in the commercial or personal services sector. In the course of the 1980s the government, through the Federal Training Institute, has promoted a series of demonstration projects under the title 'girls in men's occupations' in an attempt to encourage a breakdown of existing patterns of segregation. Measures of that segregation, which can be extracted from the official statistics

TABLE 6. Female apprentices in selected occupations, 1977 and 1987 (%)

	1977	1987
In male dominated occupations (0–20 % of apprentices female)	2·5	8·4
In mainly male occupations (20–40 % of apprentices female)	6·3	6·9
In mixed occupations (40–60 % of apprentices female)	19·4	20·0
In mainly female occupations (60–80 % of apprentices female)	24·7	24·6
In female dominated occupations (80–100 % of apprentices female)	47·1	40·0

Note: The table reads as follows; In 1987 8·4 % of female apprentices were in male dominated occupations compared to 2·5 % a decade previously. Occupations are grouped according to the proportion of females training in them in 1977.
Source: BMBW (1989).

on apprenticeship training, have shown that some movement has occurred over the last decade. In particular this has taken place at the extremes, so that the proportion of young women training in heavily male-dominated occupations has increased and the proportion training in heavily female dominated occupations has decreased (Table 6).

Finally, both the government and the Federal Training Institute have been urging employers to reconsider their attitudes to traditional 'disadvantaged groups' such as the handicapped, those with no qualifications and first generation immigrants. Increased recruitment into apprenticeships of members of these groups, it is argued, might help overcome the forecast shortages of skilled labour.

As well as making more strategic responses employers are making rather more tactical responses. Principally, these are designed to improve their individual competitive position in the market for trainees. Unlike in Britain, however, this has not resulted in a bidding up of youth wages (or as is more appropriate with respect to Germany, of the 'training allowance'). Instead, a number of larger firms have increased the value of the fringe benefits they offer, or introduced new benefits (such as meeting travelling costs or the costs of a midday meal) [18]. Some companies have been more imaginative in combining a strategic with a tactical response. One major motor vehicle manufacturer (Audi) has sought to increase the number of trainees it attracts by offering young women who train and stay with it guarantees of re-employment valid for as long as seven years if they were to leave to have and bring up children.

Given the higher quality of the training, the greater security of future employment offered and the better remuneration attached to that employment, the large firms sector as a whole has so far been relatively successful in recruiting the desired number of apprentices. The small firms sector has

performed much less well and, as the discussion of earlier sections of this paper would suggest, it is here that the major shortfalls are experienced [19]. As a consequence it is primarily the small firms sector which has found itself recruiting the former 'disadvantaged groups' of the youth labour market. In the large firms sector the employment of the handicapped, young immigrants and people with learning difficulties has largely been restricted to well-publicised but essentially small-scale experiments.

7. The Challenge of Modern-day Working

The second concern is not with the quantity of skilled labour in the medium term but with its quality. Whilst the thoroughness of the training prescribed in the regulations for each occupation was not called into question, it was recognised that they were not always relevant to the demands imposed by the most modern products and services and the most up-to-date methods of working. In some cases this lack of modernity might even have served to discourage young people from following training in a particular occupation. For some occupations the training regulations were those laid down before the last war or even earlier, and for many there had been no revision since the 1950s or 1960s. Larger and more advanced firms supplement the minimum requirements of the training regulations with their own additions to take account of changing materials and technology; smaller, less advanced firms do so much less. Formally, apprentices have to be tested in their final examinations to see if they can meet the requirements laid down in the regulations, but informally a multiplicity of standards prevail. Thus, on the basis of their knowledge of the employing organisation, examiners are likely to adjust the rigour with which they test individual candidates and the extent to which the questions they ask make reference to extra-curricular skills.

In order to bring young people's skills up to date and to increase their transparency, steps have been taken to revise the training regulations falling under the jurisdiction of the Vocational Training Act. Each year since 1969 progress has been made for a number of occupational groups, and by the end of 1989, 96% of all training places covered by the Act were covered by regulations which had been subject to revision. The process of revision was also one of rationalisation. The objective was not only to bring minimum requirements into line with present-day demands and conditions, but also to eliminate unnecessary duplication by combining closely related courses, and to abolish occupations that had become irrelevant to the needs of an advanced industrial society. As a consequence of this, there has been a fall in the number of recognised apprenticeships, from 465 in 1980 to 382 in 1988. Some of the most important revisions have been those of recent years. Thus in 1986 new regulations were introduced for the occupations in industrial engineering, in 1988 for the engineering occupations in the artisan sector. For the first group of occupations some 160,000 young people are in training, for the second nearly 200,000. Other major groups for which training regulations have been

reformed in recent years include the electrical occupations (for both the industrial and artisan sectors), the commercial and clerical occupations and the retailing occupations. It is hoped that by the early 1990s the first round of reforms will be completed and work can commence on a second round.

The reform process, which as a consequence of the 1969 Act is founded upon joint negotiations and consultations between trade union and employer representatives, supported by the resources of the Federal Training Institute, is not a particularly fast one. In the case of the regulations for engineering occupations in the artisan sector, the initial proposition to commence the reform was made in May 1983 but the new regulations, which were finally agreed upon in 1988, did not come into operation until August 1989. In the case of the regulations for engineering occupations in the industrial sector, reform procedures were initiated in 1979 but, following interruptions, the new regulations were first effective in August 1987. For other occupational groups the process was shorter – (between three and four years) but its long average length, together with the infrequency with which reforms do take place (a minimum of 20 years) suggests an element of inflexibility in the German apprenticeship system, one that is an inevitable consequence of the high degree of regulation to which it is subject [20]. It therefore seems likely that the more progressive training firms will continue to treat the regulations as minimum requirements and to supplement their requirements by their own training in the use of the newest technologies. On the basis of case studies, it has been suggested that the training given in such circumstances is more 'specific' than 'general', and this has led some commentators to express doubts about its full transferability (for example, Beuschel *et al.*, 1988).

Of course, this could be interpreted as a failure to meet the objectives the reform process was professed to have. Yet in other ways, steps were made in the desired direction. Thus the wider skill bands that were created did expand the range of tasks a skilled worker was considered capable of performing. Although it represents an extreme example, a good illustration of this is provided by the apprenticeship system for occupations in the industrial engineering sector. Previously there were 37 separate occupations for which a young person could qualify: subsequent to the reform there were only seven. It has also been observed that the recommended curriculum for the school-based part of training, which has been published simultaneously with nearly all of the new training regulations, has ensured that nationwide standards now apply here too, so that an apprenticeship acquired in one state will now be recognised more readily elsewhere. Finally, and not so directly a consequence of the reforms themselves, there has been a growing standardisation of examinations, at least in the industrial and commercial sectors. The local chambers of industry and commerce have remained the examiners, but over the last decade an increasing number of them have been availing themselves of the services of the Institute for Vocational Examinations and Teaching Material, purchasing centrally produced examination questions rather than constructing their own. The use of common examinations is seen to promote

common standards of marking, and this too should lead to a more universal acceptance of qualifications acquired.

The attempt to improve the quality of training has sometimes involved an extension of the duration of apprenticeships. The reformed engineering and electrical apprenticeships last for three-and-a-half years; their predecessors lasted only three. In retailing the two-year apprenticeship (for sales assistant) has been increasingly displaced by the three-year apprenticeship, and, whilst the reform did not abolish the former, it seems to have accelerated this process (see Schenkel, 1989) [21]. Similarly, the reform of the clerical occupations is likely to see the phasing out of the two-year office assistant apprenticeship there. More difficult to implement has been the attempt to encourage the acquisition of what can best be termed 'general competences'. The new regulations for the engineering and electrical occupations require that apprentices be able "on their own to plan, carry out and control" their work, and that the final examination should test them in this as well as their ability to perform fragmented, occupationally-specific tasks. What is unstated is how these general competences should be both taught and examined.

The Impact of the Regulations Reform

Although for many of the major occupational groups the first cohort of young people has yet to graduate from training under reformed regulations, some preliminary assessments of the latter's impact are available. Some of them were reported upon at a major conference of practitioners and applied researchers held at the end of 1988 (see BIBB, 1989), whilst the Federal Training Institute has also conducted its own summary investigation of developments in the industrial engineering and electrical occupations (Grünewald *et al.*, 1989) [22].

The Federal Training Institute's evaluation found some evidence that the introduction of the new regulations was associated with a discontinuation of the provision of apprenticeship training amongst the smaller firms in its sample. This was not unexpected. In so far as an important objective of the reforms had been to improve training quality, it was likely that some firms would be unable to meet the higher requirements now expected of them. Moreover, the broader spread of skills and competences that the new regulations require meant it was very probable that there were some firms which, although previously qualified to train, were so no longer. Either they might have produced across what was now too narrow a range, or they were not equipped with the necessary technology.

On the other hand, it was never the intention of the reform process to discourage training. Standards might have been higher, but one of the functions of the extensive discussions that preceded the reform and in which the representatives of all parts of the relevant industry were involved, was to ensure that the demands made of training firms were not unrealistic. According to the Federal Training Institute's study, the introduction of new regulations was less than the *cause* of a number of firms ceasing to train and more the

occasion of their doing so. The firms concerned had often only recently started training at all, very likely in response to political exhortation, and they regarded it as a burdensome activity which they were glad to have the excuse to drop.

A substantial proportion of firms reported that they had had to make additional investments in capital equipment to be able to continue to provide training, and related to this was an increased emphasis on off-the-job training, either in firms' own training workshops or outside. Already in the past firms that wanted to train but which were disqualified from doing so could adopt the response of seeking the use of external facilities. They could enter into partnerships with one or more complementary firms, establishing joint arrangements whereby one firm provided that part of the training the other was unable to in return for the second firm providing some other part of training that the first firm alone could not offer its apprentices. Equally, they could send their apprentices to 'external' training centres to follow those course elements that could not be offered in the firm itself. There are some indications that in the industrial engineering sector a greater use has been made of such training arrangements following the regulations reform of 1987. Subsequent to the new regulations for the artisan engineering sector coming into effect in August 1989, the adoption of such solutions is likely to be more widespread, since it is particularly small firms that will find themselves lacking the requisite training capabilities. In the early and mid-1980s joint and 'external' training arrangements were encouraged as much as anything to increase the number of young people who could be trained, and thereby better to match supply of and demand for training places. At the end of the decade, with an eye to the 1990s, their role is seen as increasingly to be providers of a broad experience of modern technology. As a consequence, there is felt to be a continuing case for government support for their activities, in the form of aids towards their establishment, expansion, re-equipment and running costs.

The higher quality of training sought by the reformed regulations was expected to have an impact upon the criteria used by employers in selecting apprentices. In particular, it was assumed that intermediate-grade school leaving certificates [23] would increasingly be demanded. It seems as if this was indeed what employers wished, but it is less certain that these wishes were fulfilled. The declining number of young people entering the labour force meant that employers could be much less stringent than they had been in the middle of the 1980s. On the other hand, it was not the intent of those initiating the reforms that they serve to exclude an important part of the youth labour force. There are no formal entry requirements set for apprenticeships in any occupation (employers have to rely on their ability to 'cream' the market and must otherwise leave places unfilled) and the new industrial and electrical apprenticeships were, in fact, designed to be successfully completed by those with the lowest grade of leaving certificate.

Nevertheless, there are fears that an exclusion might take place, if not now then in the future. In addition, there are those who question the need for

a three or three-and-a-half year training course for certain occupations. This has produced pressure, mainly from employers, for the establishment of new two-year apprenticeships, producing an intermediate grade of semi-skilled employee. In the forefront of the thoughts of those making such a proposal is the possibility of future shortfalls of skilled workers [24], but such 'sub-apprenticeships' are also seen as well suited to integrating 'disadvantaged groups' of young people into employment. Others, particularly the trade unions, have contested these propositions. They see the two-year apprenticeship as providing training that is too narrow and too firm-specific, and argue that only a broad and general training will ensure full mobility and protect the recipient against the possibility of future unemployment. Moreover, because it offers the opportunity soon to be earning a full wage or salary, the two-year apprenticeship might divert young people away from choosing high quality training. In consequence the trade unions have been using the current round of reforms to press their claims for abolition of two-year apprenticeships in those sectors where they still exist.

The reform of apprenticeship regulations might be supposed to have had an impact on the manner in which training is conducted and, ultimately, on the way in which apprentices are examined at the end of their course. Here, however, it is difficult to distinguish description from prescription. It is argued that if 'general competences' are to be encouraged, traditional methods of teaching, based upon instruction and demonstration followed by imitation, are inappropriate. Trainers have to see themselves as a resource, guiding and advising as trainees work out for themselves the way through their tasks. The Federal Training Institute has devoted considerable effort to the promotion of project-based learning and the use of 'work books' (*Leittexte*) posing general and linked questions requiring practical solution, regarding these approaches as most conducive to developing the apprentices' abilities to plan, carry out and control. How widely they are used is not, however, certain. The Federal Training Institute's own evaluation suggested that half of all firms training industrial engineering or electrical apprentices had made no change at all to their training procedures. Moreover, whilst the large majority of these firms recognised that effective implementation of the spirit of the reformed regulations would put new demands upon trainers, the extent to which they had taken steps to provide them with supplementary training to equip them for their new tasks was much more limited. Where they had, it was more often directed towards full-time trainers, who are disproportionately to be found in larger firms, than towards part-time trainers, who are far more numerous. This has provoked concern that the gap in status and competence between the two groups was, if anything, in danger of being widened as a consequence of the reform of training regulations.

8. Conclusion – Unification the New Challenge

In reviewing recent developments in the German apprenticeship system it is

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important to stress that the changes made have been marginal and incremental. There has been no major overhaul of structures, because there has been no perceived need for it. In the opinion of most of the interested parties, and certainly the dominant parties, the 'dual system' overcame the challenge of the early 1980s with its legitimacy intact. Fundamental deficiencies were not seen to be revealed, although there continue to be a few academics and politicians who point to imbalances in the system, including tendencies to undertrain and overtrain, and to a mismatch between skills needed by the economy and skills produced which could only be rectified by greater government intervention. Nevertheless, the calls for a statutory obligation to provide apprenticeship places and for a 'levy-grant' scheme to finance training activity [25] which had reverberated through the debate of the mid-1970s to mid-1980s had died away almost completely.

Had the crisis it experienced been of longer duration, and had the political situation been different, it is possible that reforms along these lines would have been considered. (History also shows they would have been fiercely contested.) As it was, the same factors that contributed to the onset of crisis also contributed to its demise. And since it passed one critical test, albeit thanks to an element of fortuity, supporters of existing arrangements could look forward with some confidence to the challenges of the 1990s. The tone of statements by the federal government and the Federal Training Institute implies that, whilst the scope of these challenges is not inconsiderable, they are certainly solvable within the framework of existing arrangements and institutions.

What is more, in so far as shortages of skilled workers constituted one of the most pressing problems foreseen for the future, the events in Germany since late summer of 1989 appeared to have considerably alleviated them. The massive influx of citizens from the German Democratic Republic (GDR) had brought more than 500,000 people to West Germany by the spring of 1990, whilst a further 150,000 arrived by the end of the year. The majority of these 'settlers' were thought to be young and qualified. With monetary and social unification in summer 1990 the former West Germany acquired an almost boundless reserve of labour in the East, which was added to as the collapse of the economy there threw hundreds of thousands out of work [26].

Yet if unification was a source of considerable advantage to West German employers, it created new and substantial problems for the training authorities in the united Germany, faced as they were by potentially massive youth unemployment in the new *Länder*. The apprentice system there, which shares common roots with that in the West, is heavily dependent upon employer provision of training places. Whilst not all firms have been shedding labour on a massive scale, very few have been recruiting, and school leavers have been the first to suffer as a result. As a stop-gap measure, universities and polytechnics in the former GDR increased their intakes by between two- and three-fold in the autumn of 1990. In the short to medium term, it is hoped that the establishment of publicly sponsored 'external' training centres will stem, at

least in part, a flood to the west (IAB, 1990). However, as important as guaranteeing the quantity of apprentice training is guaranteeing its quality. Most apprenticeships in the GDR had been of two years duration and had a much more 'artisan-like' quality (see Rudolph, 1990). As has been shown earlier, much of the effort of those responsible for training in the west during the 1980s has been directed to upgrading the quality of training and bringing it closer into line with modern materials, technologies and methods of working. Materials, technologies and methods in the east are dramatically underdeveloped in comparison with the west, and the ability of most eastern firms to comply with western standards is limited. Failure to comply, however, will frustrate their ability to attract school leavers of quality and condemn the east to long-term backwardness.

The challenge that those responsible for apprentice training policy face at the start of the 1990s is many times greater than that they faced at the start of the 1980s. In their search for solutions for the 1990s, they may take succour from the experiences and (relative) successes of the 1980s. Whether economic 'take-off' (*Aufschwung*) will come to the rescue in the east in the same way that demographic change did in the west in the mid-1980s is uncertain. It certainly cannot be predicted with the same certainty as can changes in the size of an age cohort. Nor, if it were to come, would it be an unmixed blessing, for it would ultimately bring back the problems of skill shortages and young people shortages which dominated the discussions of the end of the decade and for which no long-lasting solution was found.

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Notes

[1] Estimates put the training allowance at between 20% and 27% of a skilled worker's wage in the first year and 27% and 53% in the final year, with levels towards the lower end being more usual.

[2] The law requires that all young people under the age of 18 attend school on a part-time basis for a minimum of one day per week.

[3] Training regulations (*Verordnungen*) lay down the minimum levels of skill and knowledge expected of an apprentice. They are often quite bulky documents and they are couched in very specific terms, covering what is to be taught, at what stage and for how long, and specifying the periodicity, content and duration of examinations.

[4] In 1987/88, 53% of those who registered with the youth employment service as seeking an apprenticeship obtained a training place in the occupation of their first choice. Not all young people did register, and it is possible that it was those who were least successful in their search who did register.

[5] This section draws extensively from an earlier study of the German apprenticeship system (Casey, 1986).

[6] Contemporary estimates suggested that some 30,000–35,000 took up pre-apprenticeship courses and some 40,000–50,000 returned to school, either to continue in general education or to start some form of vocational education.

[7] The equation of artisan (*Handwerk*) and industrial and commercial (*Industrie und Handel*) with small and large is an approximate one. The distinction is based upon the firm's legal and organisational status, and hence the Chamber with which it is registered. However, nearly 90% of artisan firms have fewer than 20 employees.

[8] In the early 1970s a government commission (the Edding Commission) made an in-depth study of the costs and financing of apprenticeship training. As well as investigating the net cost of training for different types of firm, the commission made an extensive appraisal of the quality of the training in terms of both inputs and outputs. The commission's report made clear the difference in net costs between small and large firms and also illustrated the much higher quality of training provided by large firms. The sort of in-depth evaluation undertaken in 1973 has not been repeated. A small-scale study undertaken in 1980 broadly confirmed the commission's picture of the difference in net costs of training between the two types of firm. More recently (see Damm-Rüger *et al.*, (1988) a fresh attempt has been made to measure the quality of training, although the methodology of the study was considerably less rigorous than that applied by the commission. One of the main findings was that, in relative terms, the quality of training provided by small firms has improved, although it still fell considerably below that of larger firms.

[9] It is notable that, whilst in firms with fewer than 100 employees apprentices make up, on average, 15% of the workforce, in firms with more than 500 employees they make up less than 6% (see BMBW, 1989).

[10] This is referred to as the 'sponge function' of the small firms sector, and was first illustrated systematically by Steinbach (1974) in a background study for the Edding Commission.

[11] A 'pull' as well as a 'push' effect has to be recognised here. The earnings of a semi-skilled worker in a large firm are usually considerably higher than those of a skilled worker in a small firm.

[12] It is uncertain how much of such 'training beyond own needs' took place. However, it should be remembered that the marginal costs of offering an additional apprenticeship place could sometimes be very low (see Casey, 1986).

[13] In 1984 industry and commerce accounted for 48·6% of new training places and the artisan sector for 35·4%. In 1988 these proportions had become 51·7% and 33·1%

[14] At the Ruhr Conference of spring 1989, called to discuss the structural difficulties of the eponymous region, the federal government's pledge of financial support included the allocation of DM 91m to support apprentice training in areas affected by firm closures.

[15] This reflected in part their assessment of poor prospects on the graduate labour market, in part the fact that a growing proportion of them were from families where university students were not the norm and in part the perception that a double qualification (apprenticeship followed by a degree) could enhance future employment chances.

[16] 'External' training centres are centres established by chambers of industry and

commerce, industry associations, etc. to provide training places for the teaching of skills which some firms could not provide alone. They also provide the base for some apprentices who are not attached to a specific firm.

[17] Some commentators are much more sceptical about the extent and seriousness of current and predicted skilled worker shortages. There are some who argue that the claims of employers' inability to find sufficient skilled workers are made to play down the significance of current high employment levels or to serve as ammunition in the fight against union claims for shorter working hours. At a less emotive level, it has been pointed out that a substantial proportion of skilled (manual) workers – perhaps between a quarter and a third – are currently employed in semi- or unskilled positions, and that they constitute a reserve upon which employers could draw (IAB, 1989).

[18] This is not to say that the level of the training allowance is insensitive to the state of the youth labour market, rather that the response is a lagged one. Thus, after increasing at between 5% and 7% over the years 1976 to 1982, training allowances grew at only 2% to 3% in the years thereafter. Whilst overall wage growth also slowed in these years, at least some of the lower rate of increase in the level of training allowances has also been attributed to the relative oversupply of young people on the labour market. Accordingly, it is expected that in the coming years the rate of increase in the level of training allowances will pick up. In the first part of the 1980s there were cases of collective agreements, notably that of the chemical industry, freezing the training allowance for a year as a contribution towards improving the position of young people on the labour market. Equally, in the late 1980s the construction industry, which had suffered a severe shortage of skilled labour and of young recruits, increased the level of the training allowance it paid, and now tops the tables as the highest paying sector of all.

[19] Of the 85,000 unfilled training places registered with the federal employment service in September 1989, 51,000 (61%) were with artisan (small) firms and 26,000 (30%) with industrial and commercial (large) firms.

[20] Defenders of the reform process argue that there is a difference between an *initial revision*, such as the large majority of occupations were subject to, and an *updating*, such as should occur in the future. They would argue that the process now has a momentum, which will make reforms much easier and quicker.

[21] The 'inferior' two-year qualification has been kept in existence on a provisional basis, subject to review by the employers' associations and trade unions of the retail sector.

[22] The evaluation is quite a rudimentary one. It is based upon a telephone survey of some 250 firms which were then recontacted and asked to complete a short postal survey. The response rate for the postal survey was about 80%. The survey was conducted in early 1989, whilst the new regulations had been operative since August 1987.

[23] The lowest-grade school leaving certificate is that awarded at 15 or 16 by the *Hauptschule* (general secondary school). Above this comes the certificate awarded at 16 by the *Realschule* (intermediate secondary school). Those successfully completing *Gymnasium* (grammar school) are awarded the *Abitur*, the matriculation certificate.

[24] Such an argument contains the implicit recognition that many positions currently filled by skilled workers could be filled otherwise.

[25] On the history of this demand see Casey (1986). 'Pooling systems', governed by collective agreements, do exist in four industries: construction, garden maintenance, (artisan) masonry and (artisan) roofing. The first of these is by far the most important, covering in excess of 50,000 apprentices.

[26] Estimates for the number of unemployed in the former GDR in mid-1991 are some 1·7m. A further 0·7m will be taken out of statistics by special employment

measures and by early retirement, and a further 0·5m members of the labour force will be working and or living in the west. In 1989 the GDR labour force numbered just over 10m (Autorengemeinschaft, 1990).

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Alternative Funding of Education Systems: some lessons from Third World experiments

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1. Introduction: The Context of the 1990s

From whatever perspective we might view the education system, it would appear that there is a crisis in the UK's schools and universities. For the past 15 years, since the famous OECD Report on Educational Administration and Planning in England and Wales (OECD, 1975) and since James Callaghan's Ruskin College speech launched the so-called Great Education Debate (DES, 1976) the educational establishment in England and Wales has been subjected to a barrage of criticism from politicians, employers and journalists alike. Since the controversial Education Reform Act of 1988 proposed a number of quite radical changes in the financing and administration of *all* sectors of the education system, in the content of the school curriculum and in the way children are to be assessed at different ages, and since both major political parties have made education a central political issue for the 1992 General Election, the criticisms, and the sense of crisis, have been almost unremitting.

Writing in 1985 one Chief Education Officer said:

> Since the early 1970s the State System of education in England and Wales has been passing through the most difficult and dispiriting period of its post-war development. Over the past decade or so the maintained schools have had to contend with, or accommodate to, a whole range of changes and problems. These include a raising of the school leaving age to sixteen; the major restructuring of local government; the disruption of the teacher training system; the contraction of school rolls...; the spate of initiatives aimed at curricular and examination reform; ...the reform of school government...; the deteriorating economic situation with its untoward effects upon educational finance... For those involved at or near to the 'chalkface' in the provision of our children's schooling, to suffer such unrelieved pressure and instability is depressing enough; but

> worse still is the ultimate discouragement that there seems little hope of any early improvement in the situation.
>
> Any consideration of current concerns and future prospects in relation to the State system of schooling presents a rather gloomy picture, mainly because the overall context in which educational development takes place has become the most restrictive and unfavourable since the 1944 Act... (Evans, 1985), p. 246).

Lest one should think the problems are confined to England and Wales – and judging by the reactions of some politicians and teacher union leaders one would be justified in holding these views – it is worth being reminded that many of the problems are universal. The educational crisis in many different societies is largely a matter of degree. Noah (1984, p. 552) once wrote that "if we have a tendency to flagellate ourselves for our shortcomings a little too enthusiastically, it may be because we do not recognise that other nations are also experiencing severe problems in defining what makes for an education of excellence in the modern world". An interesting example of this has been the recent disturbances in France (*Time*, 1990a).

Heyneman (1990, p. 128), writing from the perspective of the World Bank, says that because there are now so many education issues that are universal and that transcend country categories, developing or developed, socialist or democratic, we would be wrong not to look comparatively. Amongst these issues he cites: the diversification of finance, especially for higher education systems; the reform of examination systems; standardised testing; who should pay for specific skill training; curriculum reform; the improvement of school management; and how to reward the more able classroom teachers without placing them into administrative roles.

As long ago as 1968, Coombs talked of the *World Educational Crisis* (Coombs, 1968). When he looked afresh at his thesis in the mid-1980s (Coombs, 1985) he argued that the situation *globally*, but especially in the countries of Sub-Saharan Africa, had deteriorated considerably. Also writing about Africa, Blaug (1979, 1987, p. 346) had this to say:

> In more than half of the forty-six countries in tropical Africa it is now perfectly obvious that universal primary education will not be achieved even by the year 2000. Everywhere there is deep dissatisfaction with the quality of education: the curriculum, the examination system, the standards of teacher training, et cetera.

The World Bank (1988) and Hinchcliffe (1985) have gone even further by describing education in Sub-Saharan Africa as in a state of crisis. Their contention is that education budgets have been distorted in favour of higher education, and that the only hope of improvement is to divert funds from the tertiary sector to the primary sector. This argument is supported by numerous writers (e.g. Blaug, 1979; Psacharopoulos & Woodhall, 1985; Lewin, 1986;

Colclough & Lewin 1990; Heynemann, 1990; Psacharopoulos, 1990a; World Bank, 1990a, b) and is an issue that will be returned to later in this paper.

In 1983 a major report on the state of education in the USA, entitled *A Nation At Risk : The Imperative for Educational Reform* (National Commission on Excellence, 1983) was not only an indictment of educational provision and standards in that country, but it led to a spate of other highly critical reports and books (e.g. Carnegie, 1983; Report of the Twentieth Century Fund Task Force on Federal Elementary and Secondary Education Policy, 1983; Business and Higher Education Forum, 1983; Sizer, 1984; Bunzel, 1985). Even in China, it would appear that there is a similar disease of self-doubt and criticism. One recent article, for example, began in the following manner:

> As we look around the world and observe the conditions in various countries, we can see that in the wake of the major growth in education in the 1950s and 1960s and, in general since the 1970s, the educational enterprises in most countries have experienced a quantitative stagnation and a qualitative decline in the last two decades. In the United States, one hears the appeal: 'the country is gripped by an educational crisis', and in Japan people are feeling deeply that: 'Unless our educational system is reformed, our nation (i.e. Japan) will be confronted with a serious crisis'. For our own part, our representatives to the Seventh National People's Congress have also spoken, with earnest and great emotion: 'Our secondary and elementary education is already gripped by a crisis'. *The problem of the insufficiency of funds and budgetary allocation to education can be seen as the fundamental reason standing behind the many other problems that are confronting education.* (Shaojiang, 1990)

Although this contention is only partly true it must nevertheless be recognised that a major part of the educational crisis of the 1980s and 1990s *is* a financial one. There are many extraneous factors that have a direct bearing on educational problems (Watson, 1985a) and schools and teachers are frequently used as scapegoats for failures and problems elsewhere in society, especially when governments either do not wish to acknowledge their own failures or their inability to deal with some of the social problems or when they are unwilling to admit that they are faced with difficult financial dilemmas for fear that they will be accused of political weakness (Simmons, 1980). Nevertheless, the central educational issue of the current time, whether we are talking about the United Kingdom, the United States, the Soviet Union, Sweden or the majority of the Less Developed Countries, is that of *quality*: of provision, of teaching, of buildings, of curriculum delivery, of resources, etc. At the root of the debate about quality is that of finance.

In writing about Indonesia some years age, Beeby (1966) put his finger on the problem when he said "The most obvious conflict in the deciding of educational objectives appears to be between the expansion of the schools and

improving the quality of the work done in them". How can a government expand school places and improve the quality of teaching and outcomes without increasing expenditure? Given that between 1990 and 2000 198 million new school places must be found at the primary level alone if Universal Primary Education is to be achieved (Lockheed & Verspoor, 1990, pp. 20–1), governments throughout the world will be looking to increase revenue for education *either* through improved efficiency, *or* through additional funds if there is to be any chance of reaching the goal of Education For All (UNDP, 1990) or of improving the quality of education, especially in the developing world (Colclough & Lewin, 1990; Lockheed & Verspoor, 1990; Stephens, 1990; Watson, 1990).

In the light of the changes taking place in the management of education in England and Wales in 1990/91, especially the devolution of power to locally managed schools and new funding arrangements for higher education (Maclure, 1988), and the reluctance of central government to write a blank cheque for educational expenditure – especially because the British government believes that not only is it spending more per pupil than ever before but that this expenditure compares favourably with that of other OECD countries (*Sunday Times*, 1990) – it is perhaps timely to examine the debate about alternative approaches in the finance of educational systems. Unfortunately, one of the sad features about the British government's thinking on educational matters during the 1980s has been the reluctance to use a comparative perspective, whether one is thinking of Swann and the multicultural dimension (Watson, 1987), the curriculum (Watson, 1989a), or the training of head-teachers (Esp, 1985). Notable exceptions include the DES study of six education systems (DES, 1985), inspite of a number of factual errors, and the excellent HMI series on aspects of education in Europe and the USA (HMSO/DES 1986, 1987, 1989a, b, c, etc.). Some of the thinking may be beginning to percolate through into policy decisions. There has, however, to this author's knowledge, been little attempt to look further afield than the USA and Western Europe. Yet, as Heyneman (1990, p. 128) argues:

> Because many educational problems are common, experiences in solving them are too. In many ways OECD countries have been insulated from using the lessons learned in developing countries because of the differences in resource constraints and the types of challenges... However, on some issues there might be more reform experience in developing countries than in OECD countries. There may be more activity in reforming university finance in French speaking Africa than in France; more experience of fiscal incentives in Brazil than in Britain... The future suggests that there will be fewer and fewer differences between OECD and developing countries in the nature of their managerial concerns in education and the lessons are likely to be increasingly shared across country categories.

This is a unique period in history, not least in the changing and fluid economic

and political realignments in the world. This author has argued once before that the United Kingdom has much to learn from developments in Less Developed Countries (Watson, 1984), a view shared by several others (see, for example, Mebrahtu, 1984). The principal argument of this paper, therefore, while similar, is as follows: that there is an educational crisis which has major financial causes and implications, that by using a comparative perspective lessons can be learnt, although it needs to be recognised that there are several limitations in the use of comparative data, especially when relating to Less Developed Countries (LDCs); and that by examining theories and practices relating to alternative sources of educational funding lessons can be learnt that could have a valuable application to the educational crisis in England and Wales. If most of the following remarks are confined to the LDCs this is where the crisis is most acute, but it is also where some of the most radical solutions are being tried.

2. The Nature of the Crisis Facing Education Systems

The crisis facing education systems need not be developed in too great detail because it has been amply covered elsewhere (see, for example, Coombs, 1985; Hinchcliffe, 1985; Lewin, 1986, 1987; World Bank, 1988; Heyneman, 1990; Lockheed & Verspoor, 1990) but it does need to be touched upon because it forms an integral part of the arguments of this paper. As much as anything else the present crisis comes from the successes of educational systems during the past 40 years (Watson, 1988).

During the 1950s and 1960s governments around the world, industrial capitalist and socialist, as much as the newly independent governments of the Third World, not only accepted the UN Declaration of Human Rights, which recognised education as a basic human right, but they also accepted the arguments that investment in education would lead to human resource development (Harbison & Myers, 1964; McLelland, 1966) to economic take-off (Rostow, 1960; Schultz, 1961) and to attitudes of modernisation (Inkeles & Smith, 1974; Inkeles & Holsinger, 1974; Blaug, 1979). There were criticisms of these views from writers such as Foster (1965) and Anderson (1961), but they went largely unheeded.

Others took a social view, arguing that educational investment would lead to fertility decline (Schiefelbein, 1980; Todaro, 1980), greater equality of opportunity (Adams & Bjork, 1969) and nation building (Coleman, 1965; Grant, 1971). Even in 1990 the World Bank was arguing that investment in primary education is justified because it leads to improved earnings, increased productivity, especially amongst Asian peasant farmers, declining fertility because of improved health care and better nutrition amongst women; and 'modern' attitudes of thought where the curriculum develops 'higher order' thinking and questioning (Lockheed & Verspoor, 1990, p. 188). This latter argument lies partly behind the thinking about the national curriculum and City Technology Colleges (CTCs) in modern England and Wales. Education

does have a vital role to play in socio-economic development. Literacy, numeracy, communication skills, problem-solving skills and higher order thinking amongst the workforce are essential for economic survival, let alone economic development. As the World Bank's (1990a) document on *Improving Primary Education in Developing Countries* observes,

> "The future of both world development and an individual nation's place in the world hinges much more than even a generation ago on the capacity to acquire, adapt, and then to advance knowledge" (Lockheed and Verspoor op. cit. p. 1). It is significant that between 1850–1960 of the 34 richest countries none achieved significant economic growth before achieving Universal Primary Education (UPE) and that the Newly Industrialising Countries (Hong Kong, Japan, Korea, Singapore, Taiwan) achieved almost Universal Secondary Education (USE) and literacy before economic take off.

The results of this kind of thinking, and evidence, was that governments committed themselves to UPE by 1980, later revised to 2000, to the eradication of illiteracy, to educational expansion, but also, inevitably, to increased educational expenditure. As a result there was a massive increase in enrolments at all levels throughout the world. Between 1950 and 1970 primary school enrolments increased from 64·7 million to 201·4 million (+211%), at secondary level from 7·5 million to 42·4 million (+465%) and at tertiary level from 0·9 million to 5·5 million (+511%) (World Bank, 1974). However, in the two decades 1960–80 the world's total enrolments practically doubled from 327 million to 641 million, greater than in the whole of previous history put together (see Table 1).

These figures are even more remarkable considering the dramatic population growth during the past 30–40 years. The population of the World was 2·5 billion in 1950. By 1987 it had reached 5 billion and it is predicted to be about 6·5 billion by the end of the century. Growth is uneven within and between countries. Some, like Bangladesh, Indonesia, Nigeria, Kenya and Cameroon are growing at dramatic rates. India and China alone will have between 2·2 billion and 2·4 billion people by the turn of the century, nearly 40% of the world's total population. Thus, in spite of the remarkable expansion of education systems throughout the past 30 years or so they have failed to keep up with overall population growth (Table 2). In the period 1965–85, for example, enrolments rose from 298 million to 482 million, an increase of 184 million places. During the same period, however, the school age population increased by 372 million, and by 1985 145 million children between the ages of 6 and 11 were *not* enrolled in school because of insufficient school places. Allowing for population growth it is estimated that to achieve a minimum level of UPE by 2000, 198 million additional school places will have to be found. This has major financial implications. There are even greater financial implications if quality issues – improving basic resources, textbook

TABLE 1. (A) Growth of enrolments by levels and regions, 1960–80

Level of education	Number enrolled (000s)			Percentage increase 1960–80[a]
	1960	1970	1980	
Developed countries				
Primary	124,077	137,711	125,454	1
Secondary	46,429	70,519	80,574	72
Higher	9599	21,105	29,719	214
Total	180,105	229,335	235,747	31
Developing countries				
Primary	121,982	204,343	291,968	142
Secondary	21,788	51,034	96,611	358
Higher	2625	7037	16,763	523
Total	146,395	263,483	405,342	181

(B) Percentage increase by level and region 1960–80

Region	Primary	Secondary	Higher
Developed countries	1	72	214
Developing countries	142	358	523
Africa	218	636	709
Latin America	134	493	831
South Asia	128	298	411

[a] Figures do not include P.R. of China, N. Korea or Namibia. *Source*: UNESCO (1983).

provision, curriculum reform, eliminating wastage and dropout, finding better qualified teachers, etc. – are also taken into account.

Unfortunately, since the mid-1970s, most governments, especially LDC governments, have been caught in a series of vicious cycles, some of which have been extraneous to education. Beginning with the sharp oil price increase of 1973/74 until the mid-1980s there was a marked economic decline, though initially this was less noticeable in developing countries until the 1980s. At the same time, in the period 1973–85 with the exception of Asia, there was a general decline in public expenditure devoted to education, which was independent of this economic decline (Orivel, 1986) (Table 3).

This was partly as a result of a decline in commitment to education as an investment – many governments were seeing education in terms of consumption rather than investment – and partly because of a decline in terms of trade which was adversely affecting many LDCs; especially where they were dependent upon primary commodities for export earnings. Increasing costs for manufactured goods, usually paid for in US dollars, also compounded the problem, leading to balance of payments problems (Table 4), but the single most crippling feature affecting all but the richest middle-income countries is

TABLE 2. (A) Population growth rates 1950–2000

Region	1950		1965		2000	
	Number (millions)	Percentage of total	Number (millions)	Percentage of total	Number (millions)	Percentage of total
Developing regions	1681	66·8	3657	75·6	4837	79·0
Africa	224	8·9	555	11·5	872	14·2
Asia (excl. Japan)	1292	51·4	2697	55·8	3419	55·8
Latin America and Caribbean	165	6·6	405	8·4	546	8·9
Developed regions						
Europe, USSR	669	26·6	917	19·0	987	16·1
Japan, Oceania, North America	166	6·6	264	5·5	297	4·9
Totals	2516	100·0	4837	100·0	6122	100·0

(B) Estimated population growth rates, 1980–2000

Region	Annual growth (%)
Europe	0–1
N. America	0–1
S. America	3
Africa	3·2
Asia	2·9
Middle East	2·7

Sources: (A) Merrick *et al.* (1986); World Resources Institute (1987). (B) World Bank, World Development Reports 1985, 1986, 1987, 1990.

TABLE 3. Growth rate of public expenditure on education (1960–83) (%)

	1960–65	1965–70	1970–75	1975–80	1980–83
Developing Countries	10·5	8·7	7·7	7·2	7·0
Africa	9·6	8·9	8·6	6·6	6·8
Asia	9·3	8·6	8·3	8·3	10·3
Latin America and the Caribbean	12·1	8·7	5·9	6·8	4·3
Industrial market economies	10·7	8·0	6·8	3·6	1·2
OPEC	13·7	9·9	11·8	7·8	6·2

Source: Eicher (1985).

TABLE 4. Balance of payments, 1970 and 1987

Country	Current account balance (US$m)				Gross international reserves in months of import coverage
	Before official transfers		After official transfers		
	1970	1987	1970	1987	1987
Low-income economies					4·5
China and India					6·4
Other low-income (average)					2·7
Bangladesh	−234	−966	−114	−309	3·5
Malawi	−46	−53	−35	−24	1·8
Burundi	−8	−185	2	−132	2·8
Uganda	19	−200	20	−107	1·0
Niger	−32	−201	0	−67	6·4
Kenya	−86	−639	−49	−497	1·4
Indonesia	−376	−2098	−310	−1837	0·0
Yemen PDR	−4	−178	−4	−122	2·1
Lower-middle-income					3·4
Senegal	−66	−608	−16	−316	0·1
Bolivia	2	−597	4	−485	5·2
Egypt, Arab Rep.	−452	−3757	−148	−2705	2·1
Côte d'Ivoire	−73	−641	−38	−624	0·1
Thailand	−296	−723	−250	−586	4·1
Jamaica	−149	−160	−153	−96	1·1
Turkey	−57	−1335	−44	−984	2·3
Colombia	−333	255	−293	255	5·2
Peru	146	−1419	202	−1914	3·2
Jordan	−130	−350	−20	−350	3·5
Malaysia	2	2170	8	2336	5·5
Mexico	−1098	3509	−1068	3884	6·2
Upper-middle-income					3·7
Brazil	−861	−1275	−837	−1275	3·0
Hungary	−61	−676	−61	−676	2·9
Argentina	−160	−4285	−163	−4285	3·5
Algeria	−163	−406	−125	−406	4·5
Portugal	−158	309	−158	641	9·9
Venezuela	−98	−1103	−104	−1125	10·1
Greece	−424	−2963	−422	−1296	3·6
Africa					2·1
East Asia					3·9
South Asia					4·6
Latin America and the Caribbean					4·7
Europe, Middle East and North Africa					3·4

Source : World Development Report 1989, table 18 (World Bank, Washington, DC).

that of the burden of international debt repayments. This is an escalating problem. Sub-Saharan Africa, which had debts totalling US$69 billion in 1982, owed US$123 billion by 1987/88; Asia, with debts of US$174 billion in 1982, had accumulated debts totalling US$287 billion by 1987/88; but Latin America and the Caribbean had even more alarming figures. Debts of US$332 billion in 1982 had escalated to US$431 billion by 1987/88.

Not all countries have been equally affected by the economic crisis. The Gulf States, Hong Kong, Singapore, Malaysia and Taiwan, Indonesia and Zimbabwe, have largely been able to weather the difficulties, but on average, in 1987, those low income economies with an average GNP per capita income below US$480 had to spend 15·7% of their export earnings simply to service their external debts (Heyneman, 1990). Averages mask individual country differences. Burundi had to spend 38·5% of export earnings in 1987 on debt servicing; Yeman PDR, 38·2%; Niger, 33·4%; Colombia, 33·4%; Argentina, 45%; and Algeria, 49% (see Table 5). Thus many countries are spending between one-third and one-half of their export earnings on debt repayments, leaving precious little for education, let alone for other competing sectors such as agriculture, health, roads, social services and above all defence expenditure (see Table 6). In many countries the sums spent on defence make it almost impossible to expand educational investment.

Unfortunately, to compound the problem even further many countries are caught in a double bind because of escalating unit costs. Costs still increase whether or not the system expands, and if quality is not to be allowed to decline too dramatically, costs will have to increase even further simply to keep a system at its present level. The longer teachers stay in post the more salary costs rise because of increments and pension rights. As children move from one stage of the education system to the next the unit costs also increase. As can be seen from Table 7, however, unit costs in the LDCs are also proportionately higher than in the Developed World. One solution has been to allow teachers' salaries to rise below the rate of inflation, but this has added to the problems because many teachers have sought alternative career paths and either expensive substitutions have had to be found or the quality of provision has declined, or both. The need for a radical re-assessment of teachers' salaries and conditions of employment will be addressed later in this paper.

To sum up the argument so far, it is fair to say that there have been remarkable achievements in educational expansion and provision during the past 30–40 years. However, population growth, economic downturns, balance of payments and external debt problems, increasing unit costs and competition from other sectors of the economy such as health, the elderly, agriculture, defence, roads, transport and the communications infrastructure, have meant that the sums available for education investment have proved inadequate to meet the demands. As the World Bank observed in 1980 (p. 70):

> If education systems continue to grow at the present rate and under the same structural and managerial conditions, they will require

TABLE 5. Public debt service as a percentage of exports, 1970 and 1987

Country	1970	1987
Low-income economies	—	15·7
China and India	—	10·7
Other low-income (average)	7·1	21·9
Bangladesh	0·0	24·2
Malawi	7·8	23·3
Burundi	2·3	38·5
Uganda	2·9	19·5
Niger	4·0	33·5
Kenya	6·0	28·8
Indonesia	7·0	27·8
Yemen PDR	0·0	38·2
Lower-middle-income	12·6	21·7
Senegal	2·9	21·4
Bolivia	11·3	22·1
Egypt, Arab Rep.	38·0	18·5
Côte d'Ivoire	7·1	19·6
Thailand	3·3	13·6
Jamaica	2·8	26·6
Turkey	21·9	31·7
Colombia	11·7	33·4
Peru	11·6	12·5
Jordan	3·6	21·8
Malaysia	3·8	14·3
Mexico	23·6	30·1
Upper-middle-income	10·6	15·8
Brazil	12·5	26·7
Hungary	—	26·7
Argentina	21·6	45·3
Algeria	3·9	49·0
Portugal	6·8	37·8
Venezuela	2·9	22·6
Greece	9·4	33·9
Africa	5·3	14·7
East Asia	7·9	17·2
South Asia	17·9	20·8
Latin America and the Caribbean	13·1	26·5
Europe, Middle East and North Africa	12·3	26·7

Source: World Development Report 1989, table 24 (World Bank, Washington, DC).

> funds... that will be beyond the financial capabilities of many developing countries.

While Asia is holding its own regarding educational expenditure and percentage of GDP allocated to education, Eicher (1985) has shown that there

TABLE 6. Central government expenditure on education, health and defence as a percentage of total government expenditure, 1972 and 1986

	Education		Health		Defence	
	1972	1986	1972	1986	1972	1986
Low-income developing countries						
Bangladesh	14·8	9·9	5·0	5·3	5·1	11·2
Burkina Faso	20·6	17·7	8·2	6·2	11·5	19·2
Kenya	21·9	19·7	7·9	6·4	6·0	8·7
Malawi	15·8	11·0	5·5	6·9	3·1	6·0
Pakistan	1·2	3·2	1·1	1·0	39·9	33·9
Sri Lanka	13·0	8·4	6·4	4·0	3·1	8·0
Tanzania	17·3	7·2	7·2	4·9	11·9	13·8
Uganda	15·3	15·0	5·3	2·4	23·1	26·3
Zaire	15·2	0·8	2·3	1·8	11·1	5·2
Average	15·0	10·3	5·4	4·3	12·8	14·7
Middle-income developing countries						
Bolivia	31·1	11·6	6·3	1·4	18·8	5·8
Botswana	10·1	17·7	6·1	5·0	0·0	6·4
Chile	14·3	12·5	8·2	6·0	6·1	10·7
El Salvador	21·4	17·5	10·9	7·5	6·6	28·7
Morocco	19·2	16·6	4·8	2·8	12·3	16·4
Tunisia	30·5	14·3	7·4	6·5	4·9	7·9
Turkey	18·1	11·9	3·2	2·2	15·5	13·5
Average	20·7	14·6	6·7	4·5	9·2	12·8
Middle-income developing countries						
Korea Rep.	15·8	18·1	1·2	1·5	25·8	29·2
Mexico	16·4	11·5	5·1	1·4	4·2	2·5
Oman	3·7	10·1	5·9	5·0	39·3	41·2
Uruguay	9·5	7·1	1·6	4·8	5·6	10·2

Source: The State of the World's Children 1989, fig. 7, p. 17 (UNICEF, New York).

has been a dramatic decline in expenditure in Latin America and the Caribbean and a slight decline in Africa, especially south of the Sahara. However, what is most disturbing is that a general decline in educational expenditure has happened, and would have happened, regardless of the overall economic decline (Orivel, 1986). Before turning to some of the attempted solutions to this dilemma, however, some thought should be given to the use of comparative data.

3. Comparative Methodology

There have always been a number of arguments put forward in favour of

TABLE 7. Unit costs by region and level of education (US$)

	Primary		Secondary		Higher	
	1975	1981	1975	1981	1975	1981
Developing countries	48	103	106	178	426	836
Africa	41	59	225	409	2878	3481
Asia	33	67	61	109	179	282
Latin America and the Caribbean	84	212	235	301	764	1718
Developed countries	—	—	868[a]	1649[a]	2080	3726

[a] Primary and secondary costs combined.
Source: UNESCO (1985).

comparative studies in education – better understanding of other countries' and of one's own country's problems, curiosity and academic interest, to help in decision-making, to help reform a system and so on (Bereday, 1964; King, 1968; Hans, 1974; Mallinson, 1975; Kay & Watson, 1982; Holmes, 1985). As Sadler (1900) said in one of his most famous addresses:

> The practical value of studying in a right spirit and with scholarly accuracy, the working of foreign systems of education is that it will result in our being better fitted to study and to understand our own.

Unfortunately in the United Kingdom there has generally been a blinkered position. Not only has there been a remarkable lack of interest in the systems of the different constituent parts of the UK but the authorities have usually only been prepared to use comparative information and data when it suited them to bring about change. The Robbins Report (HMSO, 1963) is a good case in point. However, it would be interesting to know how many of the 'radical solutions' of the present British government during recent years have been shaped and influenced by developments elsewhere. As we shall see, there are some interesting similarities.

One of the difficulties facing comparative education, however, is that in struggling to define 'pure' or 'realistic' methodological approaches (Noah & Eckstein, 1969; Cowen & Stokes, 1982; Kelly *et al.*, 1982; Schriewer & Holmes, 1988; Kelly & Altbach, 1989) it has faced ridicule from many quarters and, because of public disagreements in the 1960s and 1970s between King and Holmes, it lost considerable credibility within British academic circles. In the USA attempts to refine the approaches and purposes of comparative education have also led to ridicule, and Psacharopoulos (1990b), a World Bank planner and educational researcher, has not only brilliantly highlighted the stupidity and futility of such theoretical arguments in a very practical and down-to-earth paper in a recent issue of *Comparative Education Review*, but has also analysed

the papers in *Comparative Education Review* and *Comparative Education* (Pscharopoulos, 1988), arguing that:

> My conclusion is that the articles in the sample volumes of these journals are overly descriptive, in the sense that they provide long, non-quantitative accounts of the educational system of a single country. Seldom are the papers analytical, in the sense of statistically testing the hypothesized relationships. As a result, few comparative lessons can be drawn to assist decision makers in educational planning. (Psacharopoulos, 1990b, p. 369)

He argues that instead of theoretical perspectives, comparative education ought to have a practical application, a view readily shared by this author (Kay & Watson, 1982). Psacharopoulos argues that comparative education only has a value for policy-makers and planners, especially in the area of educational finance, if lessons are learnt from the *practical experience* of different solutions devised by different governments. This paper, therefore, accepts two of Psacharopoulos's propositions, namely:

> Comparative Lesson No. 10 – the public state budget is insufficient to provide for educational expansion – novel ways of financing are needed, including cost recovery...
>
> Comparative Lesson No. 11 – Private schools should be an integral part of a country's educational expansion effort... (Psacharopoulos, 1990b, pp. 377–8)

It needs to be recognised that, as Noah (1984) once pointed out, there are both uses and abuses in studying and applying comparative education to particular problems/situations and that there are some very real difficulties that need to be recognised. Education is *context-specific*. It is not always easy, or desirable, to transfer or replicate educational approaches *across* cultures, even though this was one of the major arguments of the nineteenth-century comparativists (Higson, 1968; Brickman, 1985). There is a danger of *ethnocentric bias* in either describing situations or in *selecting* information for comparisons. There is also the danger of accepting at face value official reports about education systems and how they function because that is what we want to believe, whereas closer scrutiny and research might actually highlight a different picture. There is also a danger that general conclusions are drawn from particular situations (Parkyn, 1976). There is a need to examine a number of particular situations in as wide a cross-section of countries as possible before drawing any general conclusions.

> The authentic use of comparative study resides not in wholesale appropriation and propagation of foreign practices but in careful analysis of conditions under which certain foreign practices deliver desirable results, followed by consideration of ways to adapt those practices to conditions found at home. (Noah, 1984, pp. 558–9)

Perhaps the biggest difficulty facing the comparativist, however, is in the reliability of the *official databases* being used.

Cross-country comparative analysis inevitably makes use of officially published data. Traditionally the more humanitarian, literary, descriptive, historical antecedent approaches of Arnold, Kandel, Hans, Mallinson and Bereday used remarkably few statistics in the analysis of education systems, largely because they were not necessarily so readily available, though as long ago as 1817 Marc Antoine Jullien, often regarded at the 'founding father' of comparative education, advocated the establishment of a centre for gathering international education statistics. Not until the founding of the International Bureau of Education (IBE) in Geneva in the early 1930s was his dream fulfilled. However, since the late 1950s/early 1960s, with increased investment in educational provision and the need for more accurate planning data, international bodies such as UNESCO, OECD, IBE, the World Bank and IIEP (the International Institute of Educational Planning) have published increasing amounts of international education statistics, which have become an important part of the comparativist's armoury. At about the same time a number of American writers (e.g. Coleman, 1965; Noah & Eckstein, 1969) began to demand a more rigorous 'scientific approach' to comparative education by the use of comparative statistical data. Because of financial cutbacks in universities many individual scholars have found themselves relying increasingly on such internationally published data. Thus statistical and other officially published data have not only become more sophisticated, especially at international levels, but they have taken on much greater significance for comparative educationists.

Unfortunately, it has to be recognised that all such data have to be treated cautiously. For a start, basic statistics ignore the human and cultural dimensions of societies, which for many scholars lie at the very heart of comparative education. Nor do statistics reveal the political or educational philosophy undergirding an education system. Because they are aggregated and averaged they overlook regional variations and urban/rural, ethnic and gender disparities, although in recent years attempts have been made to isolate these variables. Statistical information is only as good as the raw data fed into the system. If these data are inaccurate or even false, which can occur for a variety of reasons, especially in LDCs, as Chapman & Boothroyd (1988) have shown – there might be a failure in communications, the data being requested might not be available, the forms used might not be understood, etc. – it makes planning and forecasting extremely hazardous. For example, many of the census and literacy figures used are known to be inaccurate, with the result that forward planning is inaccurate to say the least. Nigeria's planning for UPE based on dubious data is a good case in point.

In terms of financial expenditure for international comparisons countries often refer to 'budget allocations' rather than the actual expenditure; public expenditure figures for the Ministry of Education only are included, thus

ignoring private or local funding, or other sources of funding from different ministries (e.g. agriculture, rural development or defence). As Coombs (1985, p. 138) observes: "When UNESCO calculates 'expenditure per student' by dividing public expenditure by total public and private enrolments, the resulting amount per student can be a sizeable understatement". Indeed, in all countries there are hidden private costs. Moreover, by calculating everything in US dollars for World Bank, UNESCO and other international statistical data, there are inevitably distortions because of exchange rates, inflation, different currency values and so on. Thus although the World Bank and UNESCO figures *are* the best international comparative data available they do have to be treated with a considerable degree of caution.

The difficulties of using international data for comparative purposes were highlighted in a series of articles that appeared in the *International Journal of Educational Development* in 1984 and 1986. Tilak (1984) made a detailed study of educational investment in South Asia, showing that educational investment is not determined by the level of economic development of a country, nor by the achievements of different education sectors, but often either by misconceived ideas about the value of such investment or because of political considerations. He summed up his argument as follows:

> Investment in education is not determined by any rational criteria in several developing economies essentially because expenditure on education is not treated as an investment expenditure. It is still regarded as welfare expenditure. (Tilak, 1984, pp. 164–5)

However, he was taken to task by Urwick (1986), to which Tilak (1986) responded, on the grounds that one cannot take raw figures of enrolments and expenditure on a comparative basis and then draw conclusions without taking into account the planning and decision-making processes – and the philosophies about educational investment, in the countries concerned. However, one of Urwick's main criticisms was that using the Asian Model of Educational Expansion (1966) and the UNESCO Statistical Yearbooks as sources for developing an argument is fraught with difficulties because of the notorious unreliability of the databases. It is a salutary reminder.

Other tools used by comparativists, apart from country-specific fieldwork, include *research reports* of individual scholars and *World Bank reports* on individual country case studies or on particular themes (e.g. primary education or higher education). As Grant reminds us, however,

> *Effective* use of international data requires a basic understanding of comparative education, the study of educational systems as functioning wholes in their contexts, and the drawing of generalisable principles from it. (Grant, 1986, p. 49)

The arguments and the evidence offered in the remainder of this paper are based on all the above research tools. The underlying assumption is that

lessons *can* be learnt by looking at developments in different parts of the world, and that in the context of the British government some of these developments have already begun to influence thinking.

4. Issues and Alternative Solutions

Given, therefore, that governments are faced with real dilemmas (Simmons, 1980) and given that there is value in comparative education, what can be done? Faced with a financial crisis of growing proportions – i.e. demand outstripping the ability of governments to provide an adequate number of places under existing structures – governments are faced with a number of alternatives. They can reduce existing levels of provision; they can reduce unit costs by increasing efficiency; or they can raise additional sources of revenue. These options are not mutually exclusive, and there is considerable overlap between them. Some solutions might be designed to raise additional finance, for example, while at the same time they might lead to reduced unit costs. Much of the current World Bank literature and the writings of educational economists talk about meeting the present crisis, euphemistically, as 'policy adjustments'.

Reducing Educational Provision

It is perhaps easier to reduce costs in societies where there is also population reduction because schools can be closed or merged, but governments can decide to restrict enrolments at different levels in the name of quality, and also as a mechanism for reducing the numbers of educated unemployed. Few LDCs have, in fact, opted for this route, though Tanzania's attempts to curb secondary education were thwarted by the growth of rival private secondary schools (Samoff, 1990). Governments can opt for reducing the number of teachers in schools or, if there are still increasing enrolments, they might maintain a standstill in the number of teachers by curtailing teacher training and expanding class sizes. Alternatively, they can introduce a number of untrained teaching aides. All these approaches have been tried in LDCs with mixed success.

Other measures might include cutting back on the *quality* of resources, buildings, furniture, etc., deferring all but essential maintenance costs, or handing over the maintenance costs to the local community or the local school board, though as we know from experience in the United Kingdom all that happens is deferred expenditure which might eventually prove even more expensive. Evidence from Nigeria and Ghana shows that parents are not averse to providing furniture and equipment if it can be shown that this is a vital contribution to the educational effort, and several other African countries have sought to involve parents in this way.

A more realistic approach is to 'rationalise' the curriculum by cutting out unnecessary or expensive 'frills' and options (e.g. music, expressive arts, practical science), or by avoiding course duplication, especially at post-

secondary and tertiary levels. This has been part of the policy of the University of London for some years, and was part of the remit of the University Grants Committee for certain university departments in Britain. Many higher education institutions in the USA are currently seeking this option (*Time*, 1990b).

In many LDCs the answer has lain in the development of *school clusters* (Bray, 1987, 1990) by which schools in relatively close proximity can share resources, facilities (libraries, laboratories, sports facilities) books, even staff; or certain schools specialise in the teaching of certain subjects. Countries involved in different aspects of this approach include Sri Lanka, Thailand, India, Peru, Costa Rica and Papua New Guinea, though, as Bray (1987) points out, none of these patterns is identical. However, there can be real benefits in terms of improved budgeting and planning, shared resources, allowing for extra funds for individual schools, inter-school co-operation, improved communications. Instead of marketing themselves fiercely and competitively, English primary schools under Local Management of Schools (LMS) might seek this as a possible route forward. Some small primary schools have already considered joint appointments of bursars.

Another approach to reducing education provision is for the government to withdraw its responsibility for funding certain parts of the education system and to hand these over to local communities, voluntary or private organisations. The easiest sector for this to take place in is the pre-primary sector, though in LDCs this only leads to marginal cost savings even in urban areas, since there are so few pre-primary schools. Where secondary, tertiary and, above all, technical/vocational education are handed over to the private sector, substantial savings can be made. This happened in Ghana in the 1950s, Nigeria in the 1960s, in Pakistan in a substantial way since 1979 (Jimminez & Jee Peng Tan, 1987) and Socialist Tanzania during the 1980s (Samoff, 1990). Many of the Latin American countries, especially Colombia, Mexico, Peru and Brazil, as well as the Philippines, have for a long time encouraged private provision at university and college level, often under church auspices. Given the expense of technical and vocational education, there is much to be said for insisting that industrial and commercial concerns should make a direct contribution to education at that level, as happens in parts of India, South Korea, Colombia, and Tanzania (Psacharopoulos, 1985b), or pay a tax based either on profits or annual turnover, as happens in France and Sweden. The British government's approach to CTCs and the marketing of state schools is partly based on this philosophy, although it is dressed up in the terminology of 'standards' and 'magnet schools'.

Alternatively, certain aspects of the recurrent education budget, maintenance, meals, cleaning, may be tendered out to the private sector as a way of making savings. This is the case, for example, in Mexico and parts of the USA.

Whether declining teachers' salaries or increasing class sizes should come under educational reduction or cost reduction it is preferable to treat them under cost reduction.

Reducing Costs

Unit costs increase regardless of whether a school system is expanding or contracting simply because costs escalate as pupils move from primary to secondary and then to tertiary education. The gap between levels appears to be greatest in LDCs (see Table 7). Unit costs also increase the longer teachers stay in the system, because of salary increments and pension rights.

The single most noticeable reductions of cost arise either through increasing class sizes, and hence teachers' workload, with little, if any, additional remuneration, or through more intensive use of plant, buildings and equipment.

Increasing class sizes has been on the agenda since the early 1980s when the World Bank suggested the following:

> The size of the class remains the most important variable. A Chilean study based on actual budget data shows that an increase of 15% in the average size of the class would produce a reduction in cost of 5% in the annual education budget, contributing significantly to the cost of major education reforms. Within certain limits an increase in the size of the class does not imply a deterioration in quality. (World Bank, 1980)

In fact the Bank challenges the argument that a decrease in class size leads to improved quality:

> Despite evidence to suggest that very small classes (15 or fewer) can have a positive effect on student achievement, variation within the size of class within the range of 20 to 40 makes little or no difference to average achievement. (Ibid.)

Many LDCs have had little option but to increase class sizes well beyond these figures. Alternatively, they can speed up the process of schooling for able pupils by means of accelerated classes. This is a route that has long been familiar in the USA and the Soviet Union.

A further alternative is to allow an erosion in teachers' salaries. This does not mean that teachers do not get salary increments – though periodically in Sierra Leone, Nigeria, Malawi and Zambia payments have been delayed for several months – but it does mean that salary increases fall below those of inflation. A recent study by Orivel & Perriot (1985) on trends in teachers' salaries in OECD countries has shown that teachers have been losing ground everywhere. In relation to mean salaries there would appear to be a loss of about 30% for primary teachers and 40% for teachers in higher education over the past 20 years. This partly arises because of a levelling off in salaries and partly because other sectors have fared better. It is also because of a cost-cutting exercise. The situation is so acute in some Latin American countries and parts of central Africa that morale has plummeted and teachers have lost any incentive to be efficient. Instead they have sought other jobs or gone 'moonlighting'. In this case cost-cutting has led to increased inefficiency.

One of the most interesting discussions of recent years has revolved around teachers' salaries, which in all education systems account for the highest single recurrent cost, as high as 90% in some of the poorer African countries. Because teachers are paid according to qualifications and years of service and not according to ability as a teacher, costs escalate. Some World Bank officials (e.g Heyneman, 1990; Psacharopoulos, 1990a) are raising the issue of whether or not pre-service teacher training might be expendable and teachers be paid according to their professional ability. Coombs (1985) takes a similar view, arguing that in no other profession would the professional be expected to perform all the varied tasks that are expected of a teacher. In the USA certain school boards have re-introduced the concept of merit pay for excellent teachers and greater responsibility or subject specialisation, closely linked with appraisal mechanisms. The same is coming in England in the face of teacher union hostility. Coombs (1985) argues for a fundamental re-structuring of the teaching profession "based on a clear division of functions and responsibilities that candidly recognises differing abilities among individual teachers and enables school systems to make the best of each one's particular abilities and potential" (p. 149).

One way forward is through the use of teachers' aides, now widely used in countries like Indonesia and the Philippines, Ivory Coast and Senegal (Colclough & Lewin, 1990) as a means of increasing class sizes and thereby reducing unit costs.

More intensive use of buildings and equipment through double and triple shifts, longer school years, shorter vacations – all being tried in different parts of Africa and Asia – also mean that unit costs are spread more thinly, since the fixed overheads remain constant while large numbers of clients (pupils) are served. Multiple-shift schooling might require greater maintenance costs because of intensive use and may involve parents in greater expense because of the need for child minding facilities (Bray, 1990), but the savings made in double/triple-shift schools far outweigh these additional costs. Research from Jamaica (Leo-Rhymie, 1981) shows that there are considerable savings as a result of double shifts, while Zambia is only likely to achieve UPE this century if it moves into double/triple shifts (Kelly *et al.*, 1986). In Malaysia it has been estimated that double-shift secondary schools accounted for only about 75% of a single-unit institution (Beebout, 1972).

Double or triple-shift usage of school buildings also has a spin off on teaching. If different teachers are used for each shift there is no saving. However, if teachers can be used for extra shifts there are major savings because they do not need extra training or extra housing and the cost of aides is considerably less than that of additional teachers. In Senegal, for example, if teachers work a double shift, they get paid an extra 25% on their salaries (World Bank, 1988, p. 49). A similar pattern is followed in Zambia, Hong Kong, Singapore and Puerto Rico. Other benefits might result from freeing labour to pursue other activities. According to Williams (1986, p. 233) savings of 10–15% could be made in this way. However, it needs to be recognised that

there are social costs, and these need be taken into account and balanced against any financial savings. Both St Lucia and Brunei Darassulam, for example, have decided to phase out double-shift schooling because too many bored children, out of school during the afternoon, have been roaming the city streets doing mindless damage.

Another cost-saving exercise might be to cut wastage and drop-out by allowing automatic promotion from grade to grade and for accelerated promotion for more able pupils. Greater use of technology and distance teaching on a larger scale can also reduce costs substantially by reaching large numbers of students at a fraction of the cost of conventional education. One of the most dramatic, and radical, cost-cutting exercises at school level, where teaching aides, peer group teaching and self-instructional modules have replaced the traditional pattern of formal schooling, is Project Impact in the Philippines, also known as Project Pamong in Indonesia and Project Inspire in Malaysia (Bishop, 1986). Similar developments are Interactive Radio Learning in Thailand, the Dominican Republic and Brazil.

Inspired by the UK's Open University, many LDCs have developed radio or educational television (ETV) systems for either reaching remote areas or for specialised groups. Pakistan, for example, has used ETV as part of its literacy campaigns in remote regions. Thailand has developed two open universities, one of which, Ramkamheng, basically teaches university students at a fraction of the normal cost and the other, Sukothaithamatirat, which is concerned with rural development (Watson, 1989b). Indonesia's open university has concentrated on upgrading teachers while Kenya has successfully experimented with distance education through radio for the same purpose (Maturiu, 1987). Perhaps the most ambitious programme of all is that of China which has used a US$60 million World Bank loan to develop 29 television universities (Hawkridge & Chen Chia-Erh, 1991).

Another form of cost-saving exercise for government is the introduction of student loans at tertiary level especially. This has long been advocated by economists as a means of ensuring that those students who wish to go on to university and who gain the greatest social benefits should make a personal investment in their own education (the same argument is used for fees) (Blaug & Woodhall, 1979; Benson, 1987; Woodhall, 1987). It has long been the practice for students in industrialised countries as diverse as Japan and Finland, the USA, Canada and Sweden to take out loans. It has been tried in a number of African countries but as Williams (1986) shows, loans have not only proved to be very unpopular, they are also expensive to operate and governments have no guarantees that they will recoup their outlays. The initial outlay may not prove to be a saving at all because of inflation, administrative costs and so on. It remains to be seen what happens to the British government's loan scheme which has begun so inauspiciously. As Williams (1986, p. 236) observed, "[loans] remain attractive in theory but limited in their practical application".

Nigeria and Zambia have experimented with greater financial contri-

butions from parents in the form of paying for food and/or accommodation at secondary boarding schools and universities in lieu of fees, but as a means of offsetting costs. Nigeria, which has a large number of secondary boarding schools is, however, seeking to deboard schools in order to release additional funds, but in the African countries such as Lesotho, Botswana and Ghana this is not feasible.

Several countries have insisted that all students should help to defray the costs of their secondary and higher education, through some form of national service, which may be partly military but will largely be involved in public services. This was well tried in Mao's China, was recently abandoned in Zimbabwe, but is still widely used in Botswana, Tanzania, Ethiopia and Sierra Leone. Psacharopoulos (1990a, b) and Blaug (1979) have argued that by insisting on some form of national service as a prerequisite to entry into higher education, universities can curtail the entry of unnecessary and unmotivated students.

Given that costs in higher education *vis-à-vis* other sectors of education have been causing alarm for some time (World Bank, 1988; Hinchcliffe, 1985), one of the easiest ways of reducing costs is to transfer expenditure from higher education to primary and secondary levels, expecting those who benefit most from higher education to make a greater contribution through fees. This has long been an argument put forward by economists (Psacharopoulos, 1983, 1987, 1990a; Coombs, 1985; Psacharopoulos & Woodhall, 1985; World Bank, 1988; Samoff, 1990) provided that the sums raised in fee income do not fall below those which the government would normally have contributed, provided that there are means-tested scholarships for those from poorer socio-economic backgrounds, and provided that the savings are put into primary and secondary education. It could also be argued that such a transfer of funds will increase revenue lower down the ladder because at a ratio of approximately 1:10:100 for every unit saved at tertiary level an additional 100 places can be found at primary level.

Even allowing for the unpopularity of such an approach, many governments have compromised by insisting that students make a greater contribution to accommodation, food, the use of libraries and laboratories, etc. Indonesia, India, Nigeria, Zambia fit within this category.

Other approaches to reduce costs and to improve efficiency that have been advocated during the past decade, at least since 1980 (Simmons, 1980; World Bank, 1980), include curriculum reforms, the reduction of pre-service residential teacher training, improved management and communications and reforms of teachers' salaries and workloads.

Most LDCs have been concerned to narrow the curriculum in academic terms, so that governments, employers, parents and teachers know what is being studied and what is being examined, and by making it more 'relevant' to employment opportunities. One aspect of this has been to end unnecessary overlap by creating courses that develop logically and sequentially from grade/stage to grade/stage. Another has involved 'ruralisation' of the

curriculum and linking it to local community needs and interests in the hope that it would help to keep young people in the rural areas and prevent drift to the cities. Countries as diverse as Cameroon and Sierra Leone in West Africa, Colombia and Peru in Latin America, Bangladesh, India and Nepal in South Asia, the Philippines and Thailand in South East Asia, have all tried this approach. Another has involved developing vocational, technical and agricultural schools or courses. This is an issue that has surfaced ever since Aristotle's time. Should schooling be for general education or should it develop technical/vocational skills? The debate raged in British Colonial Africa during this century and is raging fiercely even now in aid circles. As long ago as 1965 Foster's 'Vocational School Fallacy' highlighted that most children wanted a general education followed by training on the job. Anderson & Bowman (1965) supported this approach. Recent evidence from Tanzania and Colombia (Psacharopoulos, 1985b) and from Jamaica (Jennings-Wray, 1982) would also indicate that technical, vocational or agricultural education is not what is wanted by most parents and does not benefit those students who go into that kind of school. Evidence from Japan, Germany and France would also indicate that technical and vocational education is best undertaken in specialist institutions for the *motivated* student. Less specialised education, of course, requires less expensive equipment, laboratory facilities and the like, which imply major cost savings.

Because residential teacher training is also perceived as expensive, especially in LDCs where much ITT is really upgrading basic education, the World Bank (1990) has been advocating additional learning at secondary level before entering teacher training and then for student teachers to learn on the job as apprenticed teachers with clearly focused in-service education. It is argued (a) that this is cheaper and (b) that professionally it is more effective.

If teaching is to be seen as a lowly vocational job rather than as a profession there is much to be said for this approach. This seems to be the route the British government is following with its licensed teacher programme. The pattern is much the same as that now being tried in West Africa and the Philippines.

Improved management at school level is also advocated as a means of achieving greater efficiency, cost reduction and revenue raising, which is, of course, one of the supporting arguments for LMS in British schools (Davies, 1990). The World Bank believes very strongly that school principals should have a key role to play in improving academic standards, in making good use of resources and staff, and in raising additional revenue. It advocates financial incentives for improved efficiency, another view apparently shared by the British government. The Bank argues that "it is only through developing a strong managerial and institutional capacity that countries will achieve a substainable, good quality education system" (Lockheed & Verspoor, 1990, p. 99). It also advocates training for all school principals, a view shared and applied in the USA and Canada but one yet to be recognised in England and Wales.

As Lauglo & McLean (1986) have shown, there is no one best way of administering education systems. All societies can be placed on a continuum from extreme centralisation to extreme decentralisation with certain decisions being taken at the centre and others being 'devolved' or 'deconcentrated' to regions or local communities. Following independence most countries opted for strong central control. More recently, however, there have been opposite trends, especially in countries like Mexico, Tanzania, Thailand, Pakistan and Papua New Guinea. In these countries, school boards are not only elected by local communities and represent local community interests but they have considerable powers to raise revenue (Preston, 1990).

This leads on to the third solution in the financial crisis – raising additional resources. The key to this debate is "being able to achieve consensus on the differentiation between those sectoral elements which require public *control*, from those which require public *control* and public *financing*, from those which require public control, public financing *and* public *provision*" (Heyneman, 1990, p. 127).

Raising Additional Resources

Governments can allocate greater resources to education from the public exchequer by diverting funds from, say, defence or roads, but this is only diverting sums from one pocket to another. It does not increase overall revenue. Some governments are prepared to reward increased efficiency by measuring examination successes or by looking at the numbers of completers. India, Indonesia, Brazil and Nigeria are all engaged in this at present. However, by encouraging others to *share* the burden of costs along with the government, so that education is regarded as a joint venture, additional revenue can be raised.

This can be done in several ways, especially at secondary, vocational and tertiary levels where the costs are greatest and the returns to individuals are also greatest. In countries like Brazil, Colombia, Singapore and South Korea companies and other employers are encouraged to provide sandwich courses or on-the-job training for young people or to make contributions out of profits to sponsor certain students or to donate certain equipment. By this method the government is saved the burden of financing education for all, though it must be admitted that increased revenue is mainly at the margin.

In a number of African socialist countries – Tanzania, Mozambique, Guinea-Bissau, Benin and Zambia – the produce from school farms or from workshops may be sold in the market place. The earnings are then ploughed back into the schools. This is not a new idea. It was tried by the British in Ghana (Gold Coast) and Tanganyika in the 1930s and by China in the 1960s, but it is a valuable way of linking education and work (Knox & Castles, 1982).

Another approach is to encourage different levels of private involvement. This can range from handing over certain training functions to private organisations, increasing the share of private participation in educational

expenditure (Jee Peng Tan, 1985), to joint business/church/voluntary organisations being responsible for education provision as happens in the Philippines and much of Latin America and increasingly in Pakistan and Tanzania. It has to be acknowledged that standards may range from poor to excellent and that some government monitoring and regulation is necessary. Thus the last two national development plans for Thailand have encouraged private secondary and tertiary level colleges as a means of easing pressures on government institutions, provided they are subject to government inspection and control. In the Philippines there are more private secondary schools and universities than there are state ones. Over 25% of all secondary students in Tanzania are now in the private sector, while the *harambee* schools of Kenya account for up to 50% of secondary school enrolments. In Latin America – Mexico, Colombia, Peru, Brazil and Argentina – there is a long tradition of having private institutions, and with the exception of Brazil, where demand for state universities is still higher than for the private sector, in all the other countries it is the other way round. In Fiji only 3% of all primary and secondary schools are government-owned or run. The remaining 97% are privately owned and run, though the state contributes to the teachers' salaries.

Inevitably, one aspect of privatisation is that of fees. The UN Declaration of Human Rights and other similar UN declarations have all recognised free education, at least at primary level, while acknowledging that this might not always be possible beyond the primary levels, although it needs to be recognised that there is no such thing as 'free education'. Somebody must pay for it through general taxation, often much to the chagrin of those who either have no children or who have no desire to have children. This position was maintained for over 30 years in most countries, at least theoretically even where nominal fees were charged. China and Malawi, for example, have always charged fees throughout the system, however small the sums might be, whilst at the higher education level countries like the USA and Canada have charged fees in most tertiary level institutions.

There are variations on this theme. Some local school boards have the right to levy educational taxes. This is common in the USA and Canada, but it is also becoming increasingly common in West African states, especially Nigeria. There, in some states, an additional education tax is levied on all adults; in others 2% of a salary might be deducted at source. In some cases parents are expected to provide desks, chairs and other items of furniture as part of their contribution to education. Alternatively, the National Youth Corps helps to build schools. In Indonesia all students beyond secondary level have to pay for their accommodation while a few countries have insisted that all school leavers or university graduates repay all or part of the costs of their education through some form of national service or 'bonding' system, whereby they agree to work as teachers or government servants for so many years. This has always been part of the agreement for French teachers in training but it is also common in countries as different as Iran and Israel, Botswana, Lesotho and Tanzania, Singapore, China and Cuba.

During the 1980s, however, there was a marked shift in thinking on the part of the World Bank officials and economists of education in favour of charging fees, or what are euphemistically called 'user charges', especially for all who progress beyond primary level, provided they have the ability to pay. The change of heart has come in the light of the growing crisis in many LDCs, particularly in Sub-Saharan Africa, to meet basic educational needs, and in the light of the disproportionate costs of higher education when compared with those of primary school provision.

Arguments in favour of fees are that the further up the educational ladder one progresses the greater are the benefits and, therefore, the greater should be the personal contribution. Fees reduce costs to the government and increase social returns to education. Arguments against fees are that they lead to under-investment from the public purse, they are inequitable and are often costly to collect unless collected by the schools. However, scholarships for the poor can always alleviate some of the inequities. If the expenditure saved by the government, because fees are charged for higher education, could be used to provide additional funding for primary and/or secondary education, some of the criticisms may be weakened, but one can never guarantee that governments will pursue this course of action.

Arguments in favour of private, fee-paying schools, especially the Roman Catholic schools of Latin America and the Philippines, are that they provide choice, they may be more efficient because they are more accountable, and they relieve the government of a financial burden. On the other hand, excessive competition in education can be wasteful and duplicatory and private schools can lead to privilege and social divisiveness. In LDCs private schools range from excellent in many capital cities to poor, especially in the rural areas of Kenya. Except in a very few countries private education can never be more than a supplement to state education, though if state schools are seen to be failing in academic terms many parents will seek supplementary private tuition, as occurs in Mexico, India, Pakistan and Sri Lanka, as a means of helping their children. Perhaps the biggest danger of privatisation can be seen in both Zambia (Silanda, 1989), where 1% of the total education budget now comes from private sources, and Tanzania (Samoff, 1990), where regional variations and differences have been exacerbated.

In the past few years community financing of education has gained credence as a possible source of raising additional funds (Bray & Lillis, 1988). The argument put forward by Psacharopoulos & Woodhall (1985, p. 162) is that "a rural primary school system could be developed in which the central government provided the administrative structure... while the local community paid the costs of teachers, buildings, equipment and books". Community financing is seen as an alternative mechanism to state or government taxes for education while at the same time providing a level of local autonomy and involvement.

Problems arise, however, if, once a school is built, only the rich can afford

to attend. As Williams has stated (1986, p. 241): "community financing of schools is not the simple panacea that some may unthinkingly consider it. There are many difficulties in instituting community support", especially where the urbanisation process breaks down identifiable communities, but "the community clearly does represent a valuable resource for education and conditions for success should be fully explored".

As Bray (1987) points out, community financing is 'highly culture-specific' and it is very difficult to make generalised statements. Nevertheless, in many countries local communities are encouraged to build and/or help towards the maintenance costs of schools and even to contribute towards the salaries of the teachers. There is merit in this approach in so far as the local community feels it has a stake in the running of the schools and it does not feel that it has an automatic right to receive everything from central government. In many parts of Africa and Asia there has been a long tradition of members of local communities coming together to help build a school, but when those communities are expected to contribute towards the running costs, especially teachers' salaries, over a long period of time, then the expected commitment is considerable. Such an approach is more likely to be successful in rural areas of LDCs, as Ayot & Lillis (1985) have shown in the context of Kenya and Nigeria, but there are limitations and difficulties that need to be faced in different contexts. Some communities may demand greater responsibility and autonomy for their financial inputs; others may be happy to be seen as part of the outreach of government. The fact that countries as diverse as Nepal, India, Indonesia and Thailand in Asia, and Tanzania, Kenya and Nigeria in Africa, are making use of community resourcing, and that two major Commonwealth Conferences held in the 1980s (in Cyprus in 1984 and in Gabarone in 1985) were concerned with community financing, implies that this is an issue that is not only perceived to be of considerable importance (Bray & Lillis, 1988), but one which will continue to attract interest.

5. Discussion: Lessons to be Learnt

Given, as Heyneman (1990) has pointed out, that many educational and financial problems are now common throughout much of the world, is there anything of value that can be learnt from the above discussion? Are some of the ideas being discussed or tried in England and Wales, for example, so far-fetched, e.g. loans, LMS, and new approaches to technical and vocational education?

While recognising that England is a sophisticated, industrialised and highly technological society in comparison with many of the peasant agricultural societies of the Third World referred to in this paper, nevertheless it is worth considering some of the proposals that LDCs are now introducing. Privatisation, for example, is not new in the UK, and there seems to be little reason why schools should not be encouraged to raise additional revenues,

from whatever source, nor why parents and students should not be encouraged to make greater contributions for post-secondary and higher education since they have most to gain from these levels of education.

Should teachers be allowed to continue *national* pay negotiations to win across-the-board increases? The British government has played with this issue and has backed away from the logic of some of its thinking. Not all teachers do the same job. Some are far more effective and efficient than others. Some could do their tasks far more effectively if supported by teaching aides or if student teachers undertook an apprenticeship/internship with a master or professional teacher over a period of time. Under LMS, linked with appraisal, it is probable that a more radical approach to teachers' pay and performance will develop, but old attitudes die hard, and unless the government clearly grasps the issue of teachers' salaries and varying roles requiring different financial rewards and convinces the teachers' unions, there will continue to be inefficiency and resentment amongst the teaching profession.

Will LMS improve managerial efficiency? This is not yet known. The scheme should ease the burden of local authority administration and bureaucracy. It might simplify the purchasing of goods and services, but experience from LDCs would suggest that by involving parents and the community in the maintenance of classrooms and school buildings there is a two-way spin-off. The school benefits by getting jobs done more quickly, and the community has a greater sense of 'ownership' and involvement in the school, leading to more enthusiastic support for what actually happens in school. The trouble is that everybody has come to *expect* free education, although no educational provision is 'free', yet in those countries where contributions in the form of 'fees' over and above standard taxation are expected, there is a greater sense of interest or concern for what happens in school. As a result there is greater accountability on the part of the school.

The debate over vocational and technical education, as opposed to general education, will probably never be satisfactorily resolved. However, to expect industry and commercial organisations to make a specific contribution to technical and vocational education, whether through an employment tax, through supporting specific schools (e.g. CTCs) or through schools attached to the business concern, is by no means far-fetched. In many countries of the world they are only too ready to make such a contribution.

Improvements in school management, the curriculum and assessment are slowly taking place. The sharing of resources between nearby schools is happening in a few places. Specialisation of resources and of particular teaching within specific schools ought to be encouraged. Uneconomical duplication of effort ought to be discouraged. Whether LMS, rather than local education authority oversight and control, will actually hamper this process remains to be seen.

What is clear from looking at the financing of education across the world is that governments and education authorities need to ask some fundamental questions which they then need to share with the educational constituency in

the form of a dialogue rather than as a confrontation. Who should pay for specific skills? How can good teachers be rewarded? How can additional revenue be raised and efficiency improved? How can school management be improved? What is essential in the school curriculum? How can facilities and equipment be more intensively used? How can teacher productivity be increased at little extra cost? How can some of the burden of primary education be transferred to the local communities while providing help for the poorest? It needs to be recognised that while budgets are finite, expectations are not, yet if the users are presented with stark choices people's thinking becomes considerably more focused. As Coombs (1985, p. 165) points out, instead of saying how many students will be enrolled in the next few years and then seeking funds to meet those enrolment targets, governments or education authorities ought, realistically, to be asking how much public money will be available for educational provision during the next five to ten years and then seeking ways of making savings and increasing additional revenue in order to allow for increased enrolments.

As Coombs (1985) puts it:

> Radical changes, at least in terms of conventional educational practices, are imperative if educational systems in the future are to perform effectively the tasks expected of them. The sooner educational planners and managers, and all the interested parties, recognise this need and act in concert to move the change process forward, the greater the chance the younger generation will have of receiving an authentic, relevant and equitable education. There should be no illusions about how quickly these things can happen, the process of social change being what it is. But without a concentrated effort and soon, the situation is almost bound to grow worse rather than better. (p. 166)

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Unlearnt European Lessons: why Austria abandoned the comprehensive school experiments and restored the *Gymnasium*

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Introduction

In 1982 the pilot comprehensive school reform programme was abolished in Austria and the traditional pattern of selective secondary education re-confirmed. Since then a syndrome of implicit political suppression, media neglect and academic self-censorship has turned comprehensive schools into a taboo non-issue in national politics, although at school level disillusionment and frustration with the obvious shortcomings of early selection are widespread. The education section of the recent (December 1990) working agreement between the Socialist Party and the People's Party, which provides the policy guidelines for the next four years of coalition government, carefully avoids any reference to structural reforms of the school system and does not even mention the word *Gesamtschule* (comprehensive school).

It is the purpose of this paper to explain why 15 years of successful comprehensive school experimentation were ignored by educational decision-makers, why the Europe-wide trends towards non-selective systems of lower secondary education have received so little attention, and why it is so difficult to break the present deadlock of Austrian school reform.

1. The Context

The societal and legal–administrative conditions of Austrian educational policy-making do not favour innovation (Gruber, 1988):

(1) Stability, harmony and continuity are highly esteemed social values while 'reform' and 'change', with their inherent conflict potential, seem to have latent disquieting connotations for many Austrians. A widespread inclination towards compromise often prevents thorough debates of the relative pros and cons of different policy options. The prevailing notion of

school reform is not one of permanent adjustment of the education system to the changing needs of a dynamic democratic society but the 'setting of legal milestones', i.e. occasional major legislative efforts followed by long periods of consolidation during which schools are supposed to be left in peace.

(2) The extent of legalisation and bureaucratisation is high. Education is seen as part of the system of public administration. A hypertrophy of the principle of *Rechtsstaatlichkeit* (administration regulated by law) and the dominance of jurists in the Ministry of Education have led to an all-pervasive codification of educational decision-making and reduced the professional freedom of teachers to the small domain of classroom pedagogy. Parliament and the Ministry are perceived as the only legitimate agents for any kind of change – organisational, curricular or otherwise. Educational legislation requires a two-thirds majority in parliament.

(3) Reform initiatives originating from individual schools depend on approval from the Ministry of Education or the provincial education authorities. Only up to 5% of the schools in each of the nine Austrian provinces may be exempt from standardisation: the underlying (rather unrealistic) assumption is that all other schools operate 'regularly and uniformly'. Unsurprisingly most teachers have a bureaucratically amputated professional self-concept and a 'work-to-rule' attitude. In the absence of a graded staff structure or any other incentive for commitment and mobility – after a few years of service teachers become tenured civil servants with automatic bi-annual salary increases – most teachers spend all their career in one school without the challenge of being exposed to different organisational climates.

(4) Since the hostile controversies of the emerging Austrian republic in the 1920s, educational politics have been sharply polarised into two camps, with the reformist, egalitarian Social Democrats on the one side and the powerful conservative coalition of the People's Party, the Catholic church and the secondary teachers' union on the other. The parliamentary two-thirds majority requirement was introduced in 1962 to safeguard consensus and compromise. In effect it has provided the People's Party with the power to veto Social Democratic school reform initiatives even during the period of the 1970s and early 1980s, during which Social Democratic majority governments ruled the country. The conservatives simply withheld the consent necessary for legislative decisions, such as that to prolong the pilot comprehensive school scheme in 1982. The election of October 1990, when the Social Democrats gained the support of more than 40% of the electorate and the People's Party was reduced to approximately 30%, did not substantially change the parliamentary deadlock on the comprehensive issue.

(5) Another major reason why Austrian educational policy-making is so prone to ideological controversies and party-political bias is the scarcity of empirical research data on the functioning and efficiency of the existing school system. Austria has not fully shared what in Germany was called the *realistische Wende der Erziehungswissenschaft*, i.e. the transformation of

education as an academic discipline from a speculative hermeneutical approach to a methodologically pluralistic social science. There are no large Austrian educational research establishments of the British NFER or the German DIIPF or Max-Planck-Institut dimensions, and there is as good as no tradition of independent educational research.

Except for a few large projects, most educational research is small-scale, low-cost basic research without an explicit policy orientation, adhering to the so-called 'enlightenment' or 'percolation' model: academic educationists publish their research in learned journals or so-called 'grey publications', hoping or assuming that somehow it will reach and influence policy-makers and practitioners. Given the fact that many of these publications are not really 'public' – in the sense that they are not widely and freely available and are often written in a language difficult to decode for people outside the academic community – these hopes seem to be rather unrealistic.

Austria has no efficient educational mass-media like the *Times Educational Supplement* or *Le Monde de L'Education* which could serve as a forum for the discussion of educational issues and for the dissemination of research.

A serious deficit is the scarcity of policy analysts or policy intellectuals who challenge the complacency of the bureaucratic *status quo* and the narrowness of the present style of technocratic decision-making and stimulate a more pluralist type of planning and innovation.

(6) Austria belongs to the realm of the powerful tradition of German educational theory which seems to be particularly resistant to organisational and curricular change. Neither Austria nor Germany nor Switzerland have found an answer to the structural problems of their secondary schools. All three adhere to early selection for academic secondary education and to a strict differentiation between general and vocational education. The inability of the German-speaking countries to come to terms with the future shape of their secondary schools is blocking their creative energies for curriculum development. This is probably the major reason why they have hardly shared in the curriculum reform movement (or at least curriculum debate) which, during the last two decades, has gone on in many countries "as a natural, inevitable or necessary consequence of the structural changes and the expansion of education of the 1970s" (Skilbeck, 1990).

(7) Finally – and with reference to the title of this collection, 'Lessons of cross-national comparison in education' – one has to point out the 'selective comparative perception' from which the Austrian comprehensive reform debate suffers. Depending on their respective ideological positions, school reformers and Social Democratic politicians saw countries like Sweden, Great Britain and Italy (and for a short period during the 1970s Berlin and Hessen in Germany) as models of comprehensive school reform while the anti-comprehensive school camp limited its comparative focus to the conservative educational policies in Bavaria and Baden-Württemberg and, occasionally, to shortcomings in existing comprehensive school systems.

Generally speaking the strong preoccupation with education in the

German Federal Republic has led to a negligence *vis-à-vis* developments in the more innovative Western European countries and broader worldwide structural and curricular megatrends (Phillips, 1989).

2. The Present School System in Outline

Although the legal basis of the present Austrian school system is the School Organisation Act of 1962 with its 13 amendments, the basic structure has not changed much since the secondary school legislation of 1927, which ended a period of keen but ultimately abortive curriculum and comprehensive school experimentation immediately after the First World War. A 'normal' all-through school career leading to the *Matura*, the upper secondary school leaving certificate which guarantees the right to study at a university, consists of three four-year stages (in the case of full-time, 'long' vocational education the upper secondary stage lasts five years).

The four years of primary school (6–10) are still overwhelmingly characterised by teacher-dominated, synchronised whole-class instruction, but the new primary school curriculum of 1985 encourages Plowden-type forms of "playful, project-oriented and individualised discovery-learning" and in-service training is geared towards the dissemination of "open learning" (Gruber, 1987). The lower secondary stage for children aged 10–14 is bipartite: a minority of children are selected for the first of the two four-year cycles of the academic *Allgemeinbildende Höhere Schule* (*AHS* or *Gymnasium*), while the majority move on to secondary modern schools (*Hauptschulen*). To call the existing mode of secondary school transfer 'selection' is rather euphemistic. Neither tests nor any other kind of objective assessment are used. Since the abolition of entrance examinations set by the *AHS*, 'selection' is based on the more or less subjective grades awarded by primary teachers at the end of the fourth year of primary school. As the predominantly female primary teachers tend to avoid giving low grades, recruitment for the *AHS* has become a process of socially biased self-selection. Teachers in rural and urban areas have to implement the national curricula of their given types of school under enormously varying conditions of intake, as the transfer rates in Table 1 show (1988 data).

In all the large Austrian cities more than 50% of the lower secondary school population attend the *AHS*, which was conceived for an academic minority. How the teachers cope with such a wide range of ability without differentiated teaching materials is an open question. (There is a flourishing home industry in private tuition.) Urban secondary modern school teachers, on the other hand, complain about the concentration of less motivated, less able pupils in their shrinking schools.

Compulsory education lasts for nine years. The post-14 upper secondary stage offers:

(a) the continuation of general education in the second four-year cycle of an *AHS* (*Gymnasium*) ending with a *Matura*;

TABLE 1. Transfer rates to the AHS and secondary modern schools (1988) (%)

Transfer rates to:	*AHS* (*Gymnasium*)	Secondary modern school
Rural alpine districts	10	90
Austrian average	30	70
Vienna average	56	44
Vienna 13th and 19th districts (upper middle class)	80	20

(b) separate upper secondary schools (*Oberstufenrealgymnasium*) where *Hauptschule*-leavers and 'refugees' from *Gymnasien* with compulsory Latin can continue a general education also leading to a *Matura* (these schools have the reputation of being less demanding);
(c) five-year upper secondary schools with technically or commercially accentuated curricula which award both vocational qualifications and the *Matura*; this is the most rapidly expanding sector of the 14–19 age range, despite a weekly work-load that often exceeds 40 hours;
(d) full-time vocational education of one to three years' duration;
(e) the so-called 'polytechnic year'. At the less prestigious end of the spectrum of options about one-third of the 14–15 age-group spend their final school year in the pre-vocational, work-oriented 'polytechnic year' (*Polytechnischer Lehrgang*) before entering a 2–4-year 'dual' apprenticeship that combines four days of training on the job with one day per week in a vocational school.

There is a remarkable, although publicly little acknowledged, discrepancy between the myth of an eight-year *Gymnasium* education and the factual school careers of the majority of Austrian pupils. Empirical evidence shows that only about 30% of those who enter an *AHS/Gymnasium* actually finish their school careers there. Large numbers of pupils use the end of the lower secondary school cycle at 14 to transfer to another type of school. It seems that both the *Hauptschule* and the *AHS* lower cycle indirectly, and certainly with enormous regional variance, fulfil the role of comprehensive schools.

With the exception of Latin, which is compulsory in the *Gymnasium*-variant of the *AHS* but can be sidestepped in other types, the curricular profiles and core subjects of the *AHS* and the secondary modern school have become very similar since the 1970s. (A major differentiating factor, however, is teacher training. *AHS* teachers are university graduates while secondary modern school teachers are trained at 'academies' of the non-university tertiary sector.)

For the time being the educationally most sensible solution, an integrated comprehensive school for the 10–14/15 age-group, is blocked by political deadlock after the discontinuation of the comprehensive school experiment of

the 1970s and early 1980s. Conservative politicians in the People's Party want to restore the élitist selectivity of the old *Gymnasium* and to vocationalise the secondary modern schools. Social Democratic reformers – unable to pursue their plans for integration without the consent of the People's Party – expect the consequences of continuing parental 'voting-with-the-feet' to be so grave that before long comprehensivisation of the lower secondary stage will be inevitable.

3. The Experimental Comprehensive School Programme

Encouraged by the Europe-wide comprehensive school reform movement, which in the second half of the 1960s also reached Germany and Austria, the Social Democrats re-activated their old post-World War I demands for an integrated, comprehensive lower secondary education, pointing to Sweden, Britain, Italy and the first generation of German *Gesamtschulen*. The conservative People's Party reluctantly agreed to an experimental comprehensive school programme, stipulating that any decision on the future structure of the Austrian school system would depend on the scientifically controlled outcome of the experimental programme.

The reform programme began in 1971 and ended in 1986. Contrary to the German *Gesamtschulen*, which initially enjoyed several years of freedom to explore organisational and curricular alternatives, the Austrian reform did not allow for teacher-initiated development (Rolff, 1979). The technocratic top-down reform strategy was based on the assumption that through a controlled experiment, preconceived teacher-proof prototypes of comprehensive schools could be tested; the most efficient would eventually be disseminated throughout the land via new legislation. The innovative potential of comprehensive education was reduced to ability grouping (setting) on three levels in mathematics, English and German.

Of the 120 schools that finally took part in the experimental programme, only one was a grammar-type *Gymnasium*, while all the others were secondary modern schools. Attendance at experimental schools was optional, which hardly mattered in rural areas where most parents tend to send their children to the nearest secondary modern school, but in cities the co-existence of comprehensive schools alongside traditional *Gymnasien* led to substantial creaming, i.e. the avoidance of comprehensive schools by children of middle-class parents.

The evaluation was put into the hands of a newly created national Centre for School Evaluation and Development, administratively a sub-unit of the Ministry of Education. The assessment procedure required all teachers to adhere to a tightly prescribed work schedule and provided little scope for curricular innovation beyond the use of material provided by the centre.

The report which the Centre for School Evaluation and Development submitted to parliament in 1980 summarised all existing evaluation findings. Most of them turned out to be favourable for the experimental comprehensive

schools. Children of similar ability reached similar levels of cognitive achievement in traditional and experimental schools. Comprehensive schools were socially less selective, their pupils showed less *Schulangst* and they had a markedly stronger tendency to continue their education in upper secondary schools (Bundesminister für Unterricht und Kunst, 1980).

During the 1970s there had been occasional suspicions that the evaluation might be unfairly biased either for or against comprehensive education. However, once the report was published, nobody claimed it to be faulty or rigged. Nevertheless, the political and media impact of the well-presented research findings was negligible. In the wake of rising neo-conservatism, in 1982 the People's Party decided to withdraw its necessary parliamentary consent to a prolongation of the experiment, arguing that most schools were not 'proper' comprehensive schools with an intake covering the full social and ability range. The central feature of the reformed schools, ability grouping, was transplanted into the renamed 'new' secondary modern schools for which the three ability sets in mathematics, English and German have become not an attractive asset but – in the eyes of many parents – a worrying liability.

4. Outlook

Austria may not have a coherent policy for school and curriculum development, but there are signs of change. Despite, or perhaps just because of, the stalemate at the national/political level, a diffuse process of reorientation has begun to re-shape the traditional pattern of policy-making.

(1) A growing number of teachers who network themselves via in-service training see action research and organisational development of individual schools as a promising and efficient way of improving their professional situation. Both of these approaches require a new, interactive relationship between 'reflective' practitioners and a less bureaucratic school administration.

(2) Confronted with these claims and initiatives from regional politicians to adjust their regions to specific organisational and curricular needs, the Ministry of Education has set up an advisory group and commissioned research that looks at the conditions and consequences of a redistribution of power in educational decision-making.

(3) Finally, Austria's intention of joining the European Community has raised the question whether the *status quo* of Austrian education is compatible with the 'megatrends' in European education. Both in policy-making and in school development, self-appraisal and reflection have set in.

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Japan – Pupil Turned Teacher?

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Between 1871 and 1873 Prince Iwakura Tomomi led a mission, containing virtually the whole of the Japanese Government, on a two-year journey around the world. Its purpose was to pick up blue-prints for modernising the country as fast as possible (see Jansen, 1965, 1980). Behind this desire for rapid modernisation lay the fear that not to modernise would lead to the country being colonised by one of the Western powers. The fate of Korea, which at the same time decided to ignore the external Western threat it faced, was to prove the Meiji oligarchs correct [1]. Amongst the blue-prints sought by the Iwakura mission was one for the modernisation of the education system. The Japanese leaders recognised very quickly that, to fuel its industrial revolution, Japan had no natural resources other than its people and hence they needed to invest as much effort as quickly as possible in building a modern education system; for this purpose, the population could not be over-educated.

The models that the Japanese adopted were determined to some extent by the countries the mission chose to visit and whom they met there (see Soviak, 1971). But wherever they went, the Japanese were assiduous pupils, jotting down everything they saw and heard in the belief that their country's independence depended on it. Amongst the myriad ideas they collected and took back to Japan were: from France, the importance of a centralised education system and a strong emphasis on state-run normal schools; from Germany, a system of higher education built around a few élite public universities; from the United States, a variety of pedagogical techniques and an interest in vocational education; and from Britain, a belief in spartan character-building through athletics and moral discipline (Rohlen, 1983).

To help ensure that the lessons from their mission overseas were properly introduced into Japan, the Meiji leaders spent a vast amount of money on sending Japanese students overseas as *ryugakusei* (overseas scholars) to continue learning from other countries [2]. According to one contemporary observer the West and things Western were to be the means, 'the physician', of Japan's transformation from a feudal country (the world of shōguns and samurai) to a modern one (of parliaments and factories) (Chamberlain, 1895).

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During the first years of Meiji government, almost one-sixth of the annual national education budget was spent on sending officially designated *ryūgakusei* overseas and supporting their studies whilst they were there (Japan National Commission for Unesco, 1966, p. 116). Many of these individuals became influential in education and other fields on their return to Japan (Kashioka, 1982).

Similarly large sums of money were spent on inviting foreigners to come to Japan and guide the modernisation process *in situ*. These foreigners were known as the *oyatoi gaikokujin* (often abbreviated simply to *oyatoi* in English-language accounts), literally the 'honourable foreign employees'. Some three to four thousand *oyatoi* were employed by the government during the first two decades (1868–88) of the Meiji period [3]. These *oyatoi* were often encouraged and expected to set up mini-Western worlds in their schools in Japan. At the so-called Southern Campus, 'Everything from curriculum to living conditions and food [was] modelled on Western examples, so that the students will feel they are in a western country' (quoted in Amano, 1990, p. 50). The students were expected to study in a European language, which was the only medium through which they could learn quickly enough from their foreign teachers the knowledge that Japan needed for its modernisation. These teachers were held in high status and often paid inflated sums for their work.

The single-mindedness of the Meiji leaders in perceiving education to be *a* key if not *the* key to the modernisation of the country, can be shown by the simple fact that in 1875 around a third of all Japanese children were receiving elementary education; less than 30 years later, this figure was over 95% and rising. By the end of the century, then, an education system had been established that not only amalgamated all the ideas the Japanese had learnt from the West but was also now effective and organised and which the Japanese felt able to run themselves. The changes had not always gone smoothly; according to Amano Ikuo (author of probably the best-known account of the establishment of Japan's modern education system), the first Japanese teachers required to take over teaching the syllabus in such institutions as the medical preparatory colleges faced almost intolerable problems. They were scarcely one evening ahead of their students and hence often could not answer their questions. When some teachers quit after being intimidated by the students, a rule was drafted that forbade questions in the classroom (Amano, 1990, p. 114). Such problems aside, however, the modernisation process was both remarkably rapid and successful; Japan had proved an exceptionally receptive pupil.

In some ways, it turned out, Japan had proved too able a pupil. She had learnt too well the idea that to be a civilised society one had to take on the 'white man's burden' of 'civilising' the less-developed countries! The new centralised education system in Japan became extremely effective as a means for disseminating ultra-nationalistic ideas and ideals throughout the society, and it was this feature that led the American occupation forces to attempt to dismantle the whole system in the immediate post-war period. Once again

Japan was reduced to the role of pupil – having to learn, or relearn, ideas of local democracy in education; the participation of teachers' unions in making educational policy; co-education; and a more egalitarian system based on the American 6-3-3-4 comprehensive education pattern.

The post-war period, as is well known, saw Japan rebuilt from the ashes of defeat through what is now called the 'Japanese economic miracle'. Once again there was a strong emphasis on the importance of education in rebuilding and modernising; *kindaika* (modernisation) became the buzz-word for this period throughout the country. From around the mid-1960s, the Japanese economy really began to grow. At first this was not taken seriously in the West. It was explained away in terms of a developing country having a cheap labour force; then on ideas of protectionism; then as 'dumping' on foreign markets. As each charge was confronted and found to be less than a full explanation, a genre of literature and ideas appeared which suggested that, to some extent at least, the answer lay in the Japanese systems of work management and industrial organisation. The body of literature supporting this thesis, which appeared from the mid-1970s onwards, included such works as: Ouchi (1981), *Theory Z: How American Business Can Meet the Japanese Challenge*; Pascale & Athos (1981), *The Art of Japanese Management* (with an introduction by Sir Peter Parker, the former Chairman of British Rail); Vogel's (1978), *Japan as Number One* to name only a few of the books produced outside Japan. This genre was paralleled by another produced inside the country which also attempted to explain Japan's economic success, in this case via an indigenous (emic) cultural model. This body of literature produced in Japan, known as *Nihonjinron* (theories of Japaneseness), was perhaps best reflected in the work of Nakane Chie (1970) (who described Japan as a vertical society) and Doi Takeo (1973) (who described Japan as a culture of inter-dependent individuals).

Two interesting themes amongst others emerged from these two bodies of literature:

(1) One idea was that the Japanese 'model' was founded on a Japanese cultural base that could not be borrowed, or perhaps even understood, by other societies. One response to this theory was to send Wall Street gurus and management consultants chasing after this elusive knowledge, for example in the rewritten classic samurai book *The Book of Five Rings* (Musashi, 1982) now subtitled *The Real Art of Japanese Management*, or alternatively in a host of volumes that explained Japan in terms of *Zen and the Art of 'Anything'* [4].

(2) A second, apparently contradictory, theme was that Japanese success was based on having learnt lessons from the West which the West itself had forgotten. Concepts of TQC (total quality control) and JIT (just-in-time) were simply American ideas that the Japanese had learnt and applied more thoroughly and pragmatically than had been the case in the West. The names of Professors Deming and Juran were widely revered in Japan and the Deming Prize for the best quality control application is widely regarded as one of the most prestigious prizes in the Japanese industrial scene today. In short, the

Japanese had been such good pupils that they were now in a position to teach back some of the lessons they had learnt.

Such explanations, and the lessons learnt from them, failed to solve the problem of the ever-widening trade gaps between Western countries and Japan. Other explanations were sought and one that was alighted on – because the Japanese clearly regarded it as so important to their recent success – was the education system. From the mid-1980s articles that took a look at the Japanese education system began to appear in major journals around the world. Behind these articles often lay a simplistic (or in anthropological terms, 'functionalist') assumption that because Japan's economic system was so successful, then the education system must also be good. As Beauchamp & Rubinger (1989, p. 258) wrote in their overview of literature in English on Japanese education, "The Western literature on Japanese education now comes not only from Japan specialists..., but also from journalists, educators, and government officials who share the belief that Japanese economic success has educational roots". The articles were followed by a body of books which is still growing: for example, in the USA, Duke, *The Japanese School: Lessons for Industrial America* (1986); White, *The Japanese Educational Challenge: A Commitment to Children* (1987) and the US Department of Education report *Japanese Education Today*, produced in 1987, commissioned, and with an introduction by the then education secretary William Bennett, entitled 'Implications for American Education'.

In Britain a similar account appeared in 1988 with the publication of Lynn's book *Educational Achievement in Japan: Lessons for the West* (1988). This book was co-published by Macmillan and the right-wing think tank, the Social Affairs Unit, and its publication was announced in many of the quality newspapers and on the radio. Altogether, in their survey of literature in English on Japanese education, Beauchamp & Rubinger (1989, pp. 278–83) include 32 articles and books under the category 'Learning from Japan: Western Perspectives' of which all except four were published between 1984 and 1987.

With the showing, at the end of 1990, of the BBC documentary on Japanese education, *The Learning Machine*, there has appeared a new spate of articles suggesting that Japan could be teaching us how to run our own education system. John Rae, the former headmaster of Westminster School, currently a major opinion-maker on educational matters, wrote a preview of the documentary for *The Independent* newspaper (an important forum for such debates in as much as it caters for the upper-middle class customers of education who have been most influential in recent years in demanding change). According to Rae (1990):

> Japanese education is geared to the 21st century; the British system is geared to the nineteenth... In comparative tests of science and mathematics levels, Japanese children score highest in the world... The... characteristics which make their education such a

> powerful instrument for economic success can be copied if we have the will and the humility to do so... We do not *have* to take... these steps. We can risk it and see whether economic prosperity really does depend on a well-educated population. And if we are caught out – as we surely shall be – we can fall back on our famous British sense of humour which is one thing the Japanese do not have. So when the time comes, we shall be able to die laughing. [5]

The last few weeks of 1990 also saw the publication by a British headmaster, Mike Howarth, of a book entitled *Britain's Educational Reform: A Comparison with Japan* (1991). Here again the arguments about the need to learn from the Japanese educational system are rehearsed [6].

So what do these works suggest we can learn from the Japanese? To quote a list by Cummings (1989) [7], a leading American sociologist of Japanese education who has examined the literature produced in that country in some detail, the important lessons from which one could usefully learn are an emphasis in Japan on:

- strong primary education where all students achieve basic skills in an egalitarian setting;
- mixed-ability groupings leading to greater co-operation [8];
- time on task (240 days in school as opposed to 180 in the USA; leading to a whole extra year of education over 10 years);
- a carefully structured sequential curriculum meaning that things are taught properly the first time and do not have to be returned to before teachers can move on;
- integrated mathematics and science courses;
- an essential core curriculum in all subjects for all ages and all types of schools (even in vocational schools around one-third of the curriculum is devoted to non-vocational academic subjects);
- a strong informal education system (i.e. the *juku* and *yobiko* (cram schools) running alongside and supporting the formal system;
- links between schools so that students go to the right kind of high schools for their particular skills ability;
- the high status and acceptable pay of teachers [9].

Among specific 'Japanese' ideas that have already been adopted in the United States, 'many American states have recently entered the race to increase school days and revise their curricula so that they may have more in common, and these changes could be considered to have occurred under the influence of Japanese experience' (Ichikawa, 1989, p. 304). Following on from Cummings's list, it is interesting to ask what are the specific lessons that the British feel they could learn from the Japanese education system, since in many ways the British system is more different from, and has had less influence on, Japan than the American.

Richard Lynn is perhaps best known for his controversial work on IQ testing and his association with other educational psychologists such as Hans

Eysenck. He produced a series of articles between 1977 and 1986 suggesting that Japanese have higher IQs than their counterparts elsewhere due not to environmental but genetic factors [10]. In his 1988 volume, *Japan's Educational Challenge*, he proposes a rather different argument. As with most other works in this field (see, for example, Howarth, 1991, pp. 23–33), he starts with the idea of the average 12 year-old Japanese child being 'proved' to be statistically equivalent in academic terms to a 15-year-old Western child across a whole range of international comparative tests. According to Lynn, this is due neither to the intelligence of the individual nor to funding of the education system, but is the result of, on the one hand, commitment by Japanese parents, children and teachers and, on the other, incentives for hard work. The motivation comes from being able to see clearly what rewards hard work will reap – and the fear of failure. What makes the system work, in Lynn's view, is the fact that everyone can see and understand the connection between their life chances and examination success. In more concrete terms, Lynn proposes that in order to benefit from the Japanese example, the British should:

- lengthen the school year by a third;
- make schools more disciplinarian [11];
- encourage more parents to pay for private education and thereby increase the range of choices available in education [12];
- award Michelin-style stars to schools so that everyone can be clear which are the best schools [13];
- ensure that all students follow a centralised, national curriculum [14];
- provide better basic education for all students and have higher expectations of their abilities [15].

Rae (1990) also comes up with a series of lessons to be learnt from the Japanese example:

- education must serve the national interest rather than just the consumer [16];
- education needs to produce a well-educated population and not just a well-educated élite;
- society needs to produce an ethos of hard work, good discipline and traditional teaching.

All three of Rae's proposals are picked up in Howarth's (1991) book. He bases his comparison of British and Japanese educational reform on the following questions: what exists in the Japanese system and not in the British, and what exists in the British system that is missing in the Japanese equivalent? In particular, Howarth stresses the need for more British students to continue in the education system after the age of 16; currently 94% of this age-group in Japan continue in full-time education until the age of 18; in Britain, the corresponding figure is less than 30% [17]. Howarth lays the blame with the A-level system which supports an élite post-16 education system. He is harsh on its defenders, citing Mrs Rumbold, then Minister of State at the Department of Education and Science, that the A-level would be abolished

'over her dead body'; "Sad prospect though it may be, the image of Mrs Rumbold lying moribund in the wake of progress should be no deterrent to the abolition of A-level" (Ibid., p. 55).

Howarth (1991, p. 58) insists also that universities in Britain must be increased in number and variety: while Britain offers a small number of places with little real difference in standards or entry requirements, Japan offers many more places with wider discrepancy and can take a broader selection of the population [18].

Most importantly, according to Howarth (1991, pp. 147–66), the British need to change their attitudes towards education. No-one can be excused their complacency on this score. The British élite are interested only in control and maintaining the *status quo*; they create a cult of amateurism and incompetence that enables them to look down on the technician and the manufacturer ('people in trade'). In British society, the Japanese ideal of the 'practical educated man' who can appreciate both the sciences and the arts does not exist, nor does the equivalent of the Japanese élite, bent on promoting national achievement and social change. To compound the problem, Howarth writes, the British middle class is concerned mainly with not losing out to the working class; the working class itself is without either ambition or aspiration.

There is no doubt that Howarth is both too harsh on British attitudes towards education and too sanguine on Japanese beliefs about their own society. Even if the model he sets up is exaggerated, however, he makes an important point in comparing British anti-intellectualism and the fear of the British élite towards an educated working class with Japanese respect for learning *per se* and belief in the need for a well-educated general population [19].

Howarth, along with the other authors in this area, concludes that Western countries have no choice but to turn to, and to learn from, Japan. It will not be easy [20], but if Japan was once a pupil in the educational field, then now it should be seen as a teacher.

'Japan: pupil turned teacher': this, to a large extent, is the underlying assumption of the recent literature both on the modernisation of Japan at the end of the last century and on the contemporary educational scene. The foregoing has been an attempt to show how this assumption manifests itself in much of the work written about Japan. Both the literature about Japanese education in the nineteenth century and that about Japanese education today, however, have drastically oversimplified the picture. In order to understand why this should be so it is necessary to examine the context (place and time) in which all these accounts were produced – by whom and for whom. The rest of this paper is a 'deconstruction' of the foregoing account and a warning of the dangers of oversimplification in such a politically, historically and economically sensitive context as the practice of comparative education.

It is interesting, for example, how the interpretation of major events in the history of Japanese education has changed over time. Such interpretations are often a function of the time and place in which they are made and this can

be seen in the various views of the *oyatoi* over the past 100 years. According to Roden (1983, p. 50), they were seen as symbols of civilisation and enlightenment (*bunmei kaikaku*) in the 1870s; as symbols of imperial encroachment after 1900; and as symbols of renewed friendship across the Pacific after the 1960s. Today the Meiji *oyatoi* are sometimes seen as symbols of internationalism and are used to support the argument that Japan should hire more foreigners to teach in its schools and universities in an effort to 'internationalise' (see Arai, 1978, p. 160) [21].

It is important, therefore, that Japan's educational experience at the end of the last century is put in a wider historical context. In a sense, the Japanese have always been pupils where education has been concerned and remain so today. A large part of the early education system in Japan was adapted from their Chinese and Korean neighbours. In the early eighth century, Japan first tried an examination system that was based on the Chinese hereditary examinations known as the *keju* (pronounced as *kakyo* in Japanese), the world's oldest examination system (Amano, 1990, pp. 21–2). Those who wanted to take the examination were required to study Chinese classics first at the *daigakuryo* or at a local school. According to Amano (1990, p. 22), "The *daigakuryo* had been founded around 670 by appointing, as teachers, scholars who had come to Japan from Paekche, an early Korean kingdom, so that it was, in effect, a university staffed by foreign scholars" [22]. Whereas the *keju* system was invented in China to reduce the power of the aristocracy and create a meritocratically based bureaucracy, in Japan it appears to have been introduced in order to reinforce a system of government based on hereditary privilege. Perhaps not surprisingly, the system did not last long in Japan and soon died out. It is a matter of considerable irony, therefore, that the examination system which the Meiji leaders introduced to Japan at the end of the nineteenth century from Europe was itself based on the *keju* system which some Europeans had adopted in a modified form direct from China. It is important to note, therefore, that the process of cross-cultural learning is rarely a simple one-way process but rather an ongoing process of learning, modifying, rejecting and relearning – often over long periods of time.

Moreover, the learning role is rarely a totally passive one. The Japanese, apart from periods of seclusion such as the *sakoku jidai* (closed country period) between the seventeenth and nineteenth centuries, have generally been remarkably open to external influences. They have not allowed these influences to subsume their own culture, but have rather shown a tendency to adopt ideas and then adapt them to the existing ways. At crucial periods in Japanese history, this process has consisted of adopting foreign technology and allying it to the Japanese 'ethos'. The first period of the *ryugakusei* visiting China in the seventh century was characterised by the slogan *wakon kansai* (Japanese ethos, Chinese technology), which was echoed in the late nineteenth century call for *wakon yosai* (Japanese ethos and Western technology). When Japan has learnt from other societies, therefore, it has generally been a question of

carefully 'controlled' learning; Japan was never completely a passive pupil but an interactive or even controlling partner.

The educational reforms of the 1870s were built on a solid basis. According to Dore (1984, p. 254), in the first half of the nineteenth century more than 40 % of boys and 19 % of girls had received some formal education outside the home. Education was seen by all strata of society as being 'good'. It was in this context that the *oyatoi* were brought in to do the specific job of modernising the Japanese education system. As a recent volume of case studies of the *oyatoi* demonstrates (Beauchamp & Iriye, 1990), the Japanese actively controlled what these foreigners actually did and how they did it. However important (or self-important) some of the *oyatoi* were, they were never allowed to dictate their own terms and the Japanese were always their masters. In many cases, they were simply providing a 'crash course' in areas where the Japanese believed they had deficiencies and as quickly as possible they were replaced by their Japanese students. The title of Jones's (1980) book, *Live Machines : Hired Foreigners and Meiji Japan*, succinctly sums up this point of view.

It is also important to point out the effect of the experience on the *oyatoi* themselves since many of these 'teachers' were impressed by what they found in Japan and believed that there were lessons to learn from the Japanese in return. Some came to respect Japan to such an extent that they demanded the early repeal of the Unequal Treaties which the Western powers had forced on the country.

If the Japanese were never completely 'pupils' in the nineteenth century, then it is important to point out that they have not completely given up learning from other societies in the modern period. For the past 20 years, but particularly during the 1980s, the Japanese have been debating the introduction of massive changes to their educational system. The pressure for this change came initially from parents who wanted to relieve the pressure of the so-called examination hell and 'grey youth' syndrome that the current system imposed on their children. In 1984, however, the then Prime Minister Nakasone set up an *ad hoc* educational reform council (*Rinkyoshin*) to debate the matter further. Part of the Council's brief was to examine the legacy of educational ideas which some on the right wing felt had been imposed by the Americans during the occupation period. They demanded – and to some extent they were successful in their demands – that the system reflect more Japanese values, including respect for the national flag, anthem, emperor and traditions.

Arguably the most important force behind the calls for educational reform, however, were some of the business leaders in Japan. While they recognised the great part played by the education system in building up Japan's post-war economy they feared that it was not sufficiently geared towards the twenty-first century. Put simply, while the system had produced a labour force which was excellent at taking ideas invented in the West, improving them and then selling them back to the West, there were now not

enough ideas emanating from the West for this relationship to continue. Japan had to invent more of its own ideas to export to the West; and its education system had to produce more creative workers to come up with these inventions. Moreover, Japan had to become more 'international' in order to play its full part in a rapidly 'globalising' world; this also would require changes in the education system (see Keizai Dōyūkai, 1984).

In looking for answers to these problems, Japanese decision-makers again turned to look at other societies. Missions were sent to a number of Western countries and a joint study was set up by Nakasone and President Reagan for a comparison of Japanese and American education systems (see Department of Education, USA, 1987; Japanese Study Group 1987). At the same time, a team at Kyoto University was commissioned by the Japanese Ministry of Education (*Monbushō*) to undertake a survey of foreigners' opinions of the Japanese education system (Kobayashi, 1988). The report included translations of major articles on Japanese education from all around the world (including *The Guardian*, *The Telegraph*, *THES* and *TES* in the case of Britain), as well as synopses of major books written in several languages. It also included the results of a questionnaire mailed to 252 experts on Japanese education as well as seeking the opinions of foreign teachers in Japan.

If the Japanese are seen by others as 'teachers' in the educational sphere, it is evident that they are anything but complacent about their system themselves [23]. Not only do they look at other systems for general comparisons with their own system, but certain private schools have begun consciously to introduce foreign programmes into their institutions. The background to these innovations lies in the fact that, with the end of the second baby boom, many of the schools that were set up with government approval during the 1960s, to provide places for students whom the state system could not accommodate, now face bankruptcy due to rapidly falling rolls. Some of these schools are trying to attract students by offering a 'different' educational environment from that offered in the highly standardised state schools. In particular, some such schools play on their 'international' qualities and include extra foreign language tuition and foreign staff. A few, however, have begun to model themselves on British public schools, believing that the romantic image of places like Eton may have a positive effect on the parents of prospective students [24]. Indeed, the drive for 'internationalisation' in some quarters has even gone as far as the creation of a new slogan calling for *yōkon wasai* (Western ethos and Japanese technology) thus promoting the idea that Japanese technological advances over the past 40 years have moved ahead of their moral and social development [25].

Some of the proposals for education reform in Japan put forward by Nakasone and those around him were very radical. Interestingly, they were also moving in exactly the opposite direction to those proposed (or rather imposed) by the Thatcher reforms of the late 1980s. While Britain moved towards a model of greater centralisation, a National Curriculum and more

testing, Japan was proposing to decentralise its system, diversify its curriculum and seek ways of reducing 'teaching to the test'. Indeed, if all the reforms mooted in each country had been instituted simultaneously, then the educational models on which their systems were based would have literally sailed past each other 'like ships in the dark'. In actual fact, largely for reasons that Schoppa (1991) calls 'immobilist politics', few of the Japanese proposals were ever taken further than the drawing-board. Both debates about reform, however, produced a body of interesting comparative educational literature which suggests that the way many authors see and describe other educational systems tells us more about the views of the authors than about the societies being examined.

Lynn's (1988) book, for example, is clearly a creed for Thatcherite reforms [26]. He picks out and concentrates on those elements of the 'successful' Japanese system that concur with his ideas on what needs to be instituted in Britain. It is no coincidence that his book was co-published by a Conservative 'think tank'. In similar vein, Howarth (1990) uses, as a model, the 'successful' Japanese system in order to highlight what he believes are the weaknesses and failures of these same Thatcherite educational reforms. While Lynn and Howarth clearly come from opposite ends of the political spectrum, both are indulging in the same intellectual process of setting up the Japanese educational system as a 'strawman' or 'idealised model' off which to bounce their own ideas and beliefs. This is perhaps most evident in the way in which both Lynn and Howarth pay virtually no attention to the past 20 years of almost continuous debate in Japan over the need for, and manner of, educational reform in that country.

Those who have set Japan up as a 'teacher' therefore, are not necessarily examining the Japanese educational system because of the 'merits' they perceive in it – those who examine the system closely tend to be very ambivalent about this – as much as the fears in regard to their own systems. In a sense, people have turned to Japan in the hope of finding a panacea for the ills of their own society. The fears that led to the examination of the Japanese educational system are both internally and externally generated. In the United States, the report by the National Commission on Excellence in Education (1983) *A Nation at Risk* appeared to detail alarmingly declining educational standards; similar reports appeared in the British press throughout the 1980s. Externally, the success of the Japanese economy and the other Newly Industrialising Countries (NICs) played a role in the United States somewhat analogous to the Sputnik shock of the 1960s. Complacency was rapidly replaced by panic. The symbolism of the approaching year 2000 simply added to the urgency of the situation.

It is in this context that one must examine the literature that purports to see Japan as a 'teacher' in educational matters. To some extent, Japan is simply being used as a model to castigate the establishment and established educational views in a number of Western societies very much in the way China (and indeed, to a much smaller extent, Japan) was used by the

enlightenment thinkers to attack the divinely revealed 'truths' of their rulers (see Roberts, 1989) [27].

In anthropological terms, it is clear that what we have here is the classic concept of self and other, whereby the other is imbued with all the qualities that the self does not contain. In this instance, however, the qualities contained by the other (Japan) are not only different but also given a positive value so that, to paraphrase Said's (1985) famous thesis, we are left with a kind of 'inverted Orientalism' [28]. The literature that seeks to praise Japanese education is in fact holding up an idealised model of the Japanese system to our own system in order to portray the latter in the worst possible light [29].

Perhaps it is just as well that the Japanese system is only used as a strawman and not as a serious model from which the West could learn. Little of the Japanese system would adapt easily to British society without fundamental changes in our whole cultural and social fabric. As Rohlen (1983, p. 325) writes for the United States, "Japanese high schools can be a mirror but not a model for America" – and the same can be said for Britain. On the other hand, studies of comparative education can teach us to examine our taken-for-granted cultural assumptions about education and educational systems [30]. It must always be remembered, however, that accounts of other education systems are not produced in an intellectual vacuum but in an historical, political and cultural context. Such accounts tell us as much about those who produced them as the 'realities' described. The view of Japan in the educational sphere as a pupil turned teacher is probably more a statement of the relative economic and political standing of Japan *vis-à-vis* other societies than a description of the Japanese education system itself.

Notes

[1] Although, ironically, it was the Japanese who annexed Korea in 1895 and then colonised her between 1910 and 1945.

[2] According to Bennett *et al.* (1958, p. 27), the term *ryugakusei*, (meaning 'overseas scholar' but with the implication of 'bearer of enlightenment from the lands beyond the sea') entered the Japanese language as early as the seventh century when students were sent to learn from neighbouring China. When the term was reintroduced during the last quarter of the nineteenth century, it was being used for the first time in almost 500 years.

[3] It is somewhat surprising that we do not know more accurately the number of *oyatoi* in Japan during this period, since they have become a favourite source for PhD material, especially in the United States, in recent years. For the best accounts of the *oyatoi*, see Jones (1980), Burks (1985) and Beauchamp & Iriye (1990).

[4] These books by D. T. Suzuki and Alan Watts became particularly popular during this period, as did literature on Japanese martial arts. Indeed, by the early 1980s it was probable that these two areas constituted over half the 'Japanese' stock of most major bookshops outside Japan.

[5] This last, apparently ethnocentric comment, refers to a curious passage in the documentary where a social science teacher is seen giving a lesson in 'comparative sociology' and, in drawing out the comparisons between the hardworking

Germans and Japanese, comments that neither has any sense of humour. A 'sense of humour' indeed is one of the few positive images of British society that can be found in modern Japanese textbooks, where it is still common for a strike to be referred to as the 'British disease'.

[6] Perhaps the most compelling evidence of the current political mileage in the idea that Japanese education is something we need to learn more about can be seen in a book currently being put together by the British Cabinet Minister Michael Heseltine based on the diaries he kept from his visits to the country and which contains a chapter specifically on the education system.

[7] For a more detailed analysis of the American literature on learning from Japanese education, see also Ichikawa (1986, 1989) and Tobin (1986).

[8] This refers to the system of education known as the *han seido* where a class of 48 students is divided into six groups of eight and where students are generally treated primarily in the context of that group rather than as individuals. For more detail about this system, see Goodman (1989, pp. 30–1).

[9] The salary of Japanese teachers is more than the average of the labour force with the same educational background. They are also in a particularly secure profession that guarantees a bonus of 5/17ths of their annual salary; lifetime employment and pay rises based on years of service (see Dore & Sako, 1989, p. 7). Their status is considerably higher than average in Japanese society. The word for teacher, *sensei*, is applied to members of the teaching profession at all levels and has the ring that 'doctor' has in Western societies.

[10] Some geneticists in the United States have taken this idea further, in effect suggesting that there is nothing that the Americans can do about the 'Asian challenge' since it is because of their larger brain size that the Asians lead all other ethnic groups in education attainment (see Wilkie, 1990).

[11] Japanese schools have an extremely strict array of rules (*kisoku*) for all pupils up to the age of 18. These cover everything from hair length to clothes style. Children who refuse to follow these rules to the letter may be suspended or even expelled from school. There is no doubt – despite mounting alarm in Japan over recent years – that Japanese schools are relatively free of the delinquency problems found in the schools of most other industrialised societies. In Japan, reported attacks on teachers rose from 191 incidents in 1978 to 929 in 1983. Overall reported incidents of school violence rose from as 1292 to 2125 during the same period (Schoppa, 1991, p. 271). According to Duke (1986, p. 186), however, in the United States (with double Japan's population), 282,000 students were physically attacked in a peak year and 1000 teachers every *month* were sufficiently seriously assaulted to require medical attention.

[12] Apart from at the kindergarten stage, very few Japanese children attend private schools before the age of 15. At senior high school age, however, around 30% of children go to the private schools, of which most were set up in the 1960s to provide places during the rapid educational expansion that the Government-run schools could not contain. These private schools, however, are unevenly distributed around the country. In some urban areas, such as the Tokyo conurbation, as many as 60% of children may go to private schools (James & Benjamin, 1988, p. 149). At university level, around 70% of students attend private institutions.

[13] While such a system does not actually exist in Japan, all parents, teachers and children are aware of how individual schools stand on the local, prefectural or even national hierarchy of institutions. These hierarchies are relatively inflexible, so that even though teachers in state schools are rotated by the local education authorities every few years, students keep changing, and financial support is spread equally, the top schools always remain at the top of the tree. Change has

only come about in areas such as Tokyo and Kyoto where left-wing authorities have introduced the placing of students in state senior high schools by catchment area rather than through competitive examination. Here, private schools have leap-frogged the state schools (which elsewhere generally remain the top schools) up the educational hierarchy (see Rohlen, 1983).

[14] Probably only France among other industrialised countries has as centralised an education system as Japan. Textbooks are screened by the Ministry of Education (*Monbushō*) and generally all the schools in the same geographical areas will use the same books. Children who change schools within Japan rarely have problems picking up the curriculum again.

[15] In Japanese education there is little idea of the naturally gifted child, even in such areas as music and art; children are simply divided between those who work hard and learn the basic skills and those who fail to do so. Indeed, there is almost the sense that some sort of hardship is integral to the learning process. The words most often found in school reports are those such as *dōryoku* (effort), *ki* (spirit), *gaman* (perseverance), etc.

[16] The idea of education being in the interests of the nation state was central to the thinking of the Meiji reformers. It was only in the post-war occupation period that the notion of education being for democratisation and individual development became central to educationalists' thinking. These two notions remain uneasy bedfellows in the modern system, and, according to Schoppa (1991), esp. pp. 22–52), explain much of the background to current debates for reform in the education system.

[17] It is surprisingly difficult to get an accurate picture of exactly how many children stay on in education in Britain since different commentators include different categories within their statistics. According to Rumbold (1987, p. 4), then Minister of State for Education, in 1987 31% of 16- to 18-year-olds in Great Britain were in full-time education. A further 17% were in part-time education.

[18] Japan has around 460 four-year universities and 560 two-year universities. These latter, known as 'short-term universities' (*tanki daigaku*), have an intake 90% female and are sometimes called 'bride schools'. As with the high schools, everyone in Japan knows the relative position of each of the thousand or so universities on the educational hierarchy. There is a close correlation between the success of the bigger companies (which offer higher status and salaries and greater security) and the reputation of the universities from which they recruit. Britain has 46 universities which serve a population that is roughly half that of Japan.

[19] The best comparison between the two systems can be seen in Dore's (1984) work on Tokugawa education which compares the high levels of education achieved under what some have described as one of the most regimented regimes in recent world history, with the lack of education provided for the working class in Victorian Britain. The type of anti-intellectualism still prevalent in British society, excellently demonstrated in an article by Berthoud (1990) which reels off a list of those who have 'succeeded' without a university degree as evidence of the lack of need for higher education, is quite incomprehensible to a Japanese audience.

[20] Among the obstacles which Howarth believes prevents the British from learning from the Japanese educational experience are the following: the prevailing belief that Japan's success is a product of some strange, incomprehensible culture, whereas in fact, Howarth believes, it is simply based on rational decision-making; the continuing belief that the Japanese are just copiers, and their success has been achieved by such unfair means that nothing positive can be learnt from them; the fact that racism and a superiority complex still prevent the British from believing that they can learn from others; the fact that, like other countries in the West, but

exaggerated because of its imperialist legacy, the British see themselves as teachers and not pupils who give to the world and do not expect to receive from it. Howarth is, of course, right about these problems and they explain what lies behind another popular approach in the British media which viciously and indiscriminately attacks everything about the Japanese education system. Recent examples include Holmes (1989), who describes "A system that is designed to stamp out creative tendencies and remove the ability to question [and] has the potential to produce a malleable population of rampant nationalists in the world's strongest economic superpower"; and McGill (1990), who writes: "Iron discipline is the order of the day... Any infringement of the rules is in some cases punished by a severe beating or humiliation. But... even if their children are killed, Japanese parents are reluctant to take any action".

[21] Since the early 1980s, the Japanese government has invited increasing numbers of Westerners (principally from the United States and Britain) to teach English in Japanese schools. Almost a thousand assistant teachers went to Japan under this scheme in 1990, most of them for a two-year stint. At the same time, many private schools and colleges are also inviting increasing numbers of foreigners to teach in their institutions.

[22] The term *keju* is known in Japanese as *kakyo* and is normally translated as 'Chinese Higher Civil Service Examination System'. Some authors see it as a fundamental common element in the social systems that developed in China, Korea and Japan and refer to all three societies as *keju* or *kakyo* cultures (*bunka*) (see, for example, Onuma, 1985, pp. 108–9).

[23] At a conference in 1985 at Hertford College, Oxford, during a session on Japanese education, the panel of five included three Japanese and two British specialists on Japanese education. When asked what they felt was the best aspect of Japanese education, all three Japanese responded that they could not think of a single element they would recommend to the audience.

[24] In one private boarding school where I undertook research, Ikeda Kiyoshi's (1949) classic book on British public school life written in the 1940s, *Jiyu to Kiritsu* (Freedom and Discipline) was compulsory reading for all fourth-year (16-year-old) students.

[25] Ohnuki-Tierney (1990, pp. 204–5) describes the current situation where the Japanese and Americans appear to be copying each others' education system as 'imitation and counter-imitation': "There has been a profusion of foreign publications written... on the Japanese educational system ostensibly to crack the secret of the country's economic success, and yet the Japanese, who believe that the American educational system is better, are now searching for sites in the United States to establish overseas campuses of Japanese universities". Some American institutions have decided to establish educational systems that combine ideas from Asia and Europe such as the St Petersburg Junior College which is a "model college within a college incorporating principles of education found in Asian and European systems". The three systems which are mentioned in the outline of the college are the Japanese, Korean and German. It is interesting to note that not only have Japanese campuses been opening in the United States (and Britain, particularly at the Universities of Durham and Reading), but also American colleges (and British institutions such as St Catherine's College, Oxford, which is setting up a branch in Kobe) are setting up campuses in Japan. The important point to realise, however, is that the Japanese institutions in whichever country are essentially for Japanese students and their establishment should be understood in the context of the Japanese drive for 'internationalisation' and the fight by some private colleges to remain solvent.

[26] As I wrote in a review (Goodman, 1989) at the time that this book appeared, it was

only while reading it that I really began to understand the educational philosophy underlying the proposed British educational reforms.

[27] There are interesting comparisons between the way Japanese education has been perceived outside the country and the way other Japanese institutions are seen. The low reported crime rates in Japan have led a number of Western countries to look at Japan's system of policing in a very positive light. As with education, Japan's police system was largely based on Western blue-prints collected during the Meiji period (see Bayley, 1976; Parker, 1984).

[28] Already Japan has undermined many of the fundamental ideas of the original Orientalist (Weberian) argument that saw only Western culture being able to bring about capitalism because of its history of individualism and self-reflexivity (see Turner, 1974, 1978). Edward Said, following Foucault's idea of the relationship between knowledge and power, saw Orientalism as the expansion of Western power over the Orient. What he failed to realise was that the other can be ascribed positive as well as negative values depending on the context and the relative power of self and other. It is the economic power of Japan which makes it so interesting and attractive to Western interpreters today. Neither did Said address the question of Occidentalism whereby an Oriental culture regards the West as a single cultural unit to which can be ascribed the positive or negative values of the other. The idea of Occidentalism has long been important in Japan; the Western world and Western people are seen as springing from, and sharing, a common culture which is the mirror opposite of that of Japan and which is sometimes ascribed positive values, sometimes negative (see Moeran, 1988).

[29] It is important to reiterate that exactly the same process can be seen to occur in Japan *vis-à-vis* British and American education – but more so. The Japanese know far more about the West and its systems than the West knows about Japan. In comparing the Japanese literature on the American educational system with the American literature on the Japanese system, Cummings (1989, p. 296) notes that the American studies have been rather holistic and exaggerated in approach, whereas the Japanese studies have been more focused and pragmatic. Tobin (1986, p. 271) points out that the major weakness of bicultural studies of education is that they tend to emphasise the differences rather than similarities between the two societies being studied.

[30] It might be useful to outline some of the elements of Japanese educational philosophy which can be strongly contrasted with the British equivalent. As noted above (n. 15), in Japan much less value is given to natural ability and much more to effort than in Britain. This can easily be seen if one compares Japanese cultural heroes (such as Ninomiya Sontoku whose success was achieved by struggling against the odds and whose statue can be found outside all Japanese junior high schools) with British cultural heroes of the 'quantum-leaps-in-knowledge' type such as Isaac Newton and George Stephenson. Very few children in Japan are unable to sing or draw at all, a fact which some observers believe is related to this lack of early labelling. Connected to this is the idea that creativity in a subject can only be achieved after the individual has mastered the parameters of the relevant field; there is little room for innovative beginners in Japanese society, only creative experts. As a result, much more effort is expended in Japan than in Britain on learning the basics properly and thoroughly. For an excellent example of the positive benefits of the process of 'contrastive education', see Dore and Sako's list of nine major assumptions behind British vocational educational philosophy which the Japanese experience seriously brings into question.

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